RESEARCH IN SOCIAL SCIENCE
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OL. 69
NO. 4

textile bulletin

Activities of the German textile industry during World War II have been investigated, summarized and evaluated by American experts. See Pages 27-33 for preliminary reports.

OCTOBER · 15 · 1945

Engineered to fit your needs

MATERIALS HANDLING EQUIPMENT

S. R. & V. G. Brookshire

ENGINEERING SALES COMPANY

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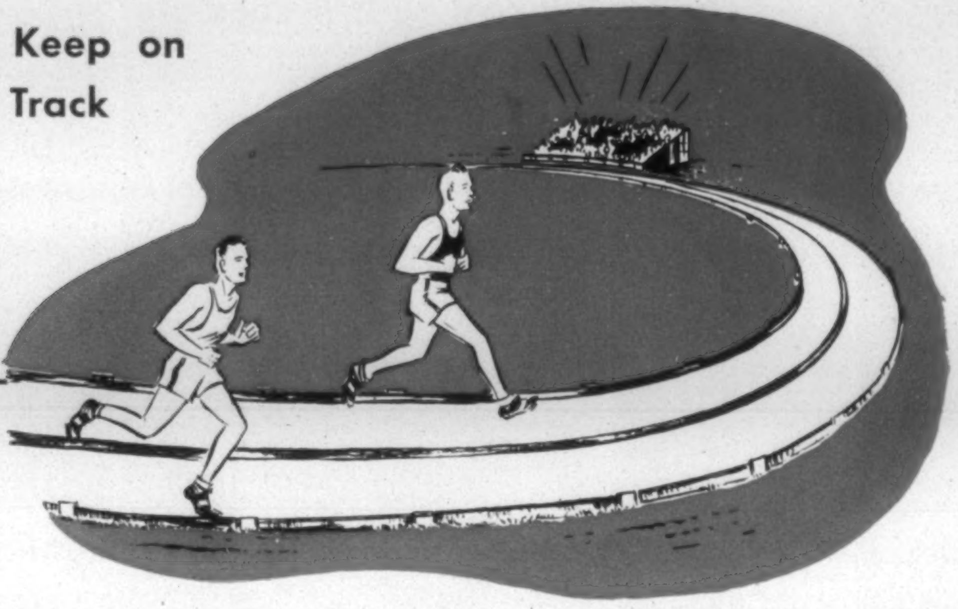
VICTORY LOAN

ABP

ABC

ADVERTISING INDEX—PAGE 57

It Pays to Keep on the Inside Track



A New Method of Belt-Making Presented in

SPIN CRAFT for SHORT CENTER DRIVES

It is a known fact that the inside track is shorter. This principle also applies to endless double belts, for the reason that the distance around the pulleys is longer on the outside of the belt than on the side contacting the pulleys. The differential in length between the inside and outside ply is proportionately greater on short centers than on long centers.

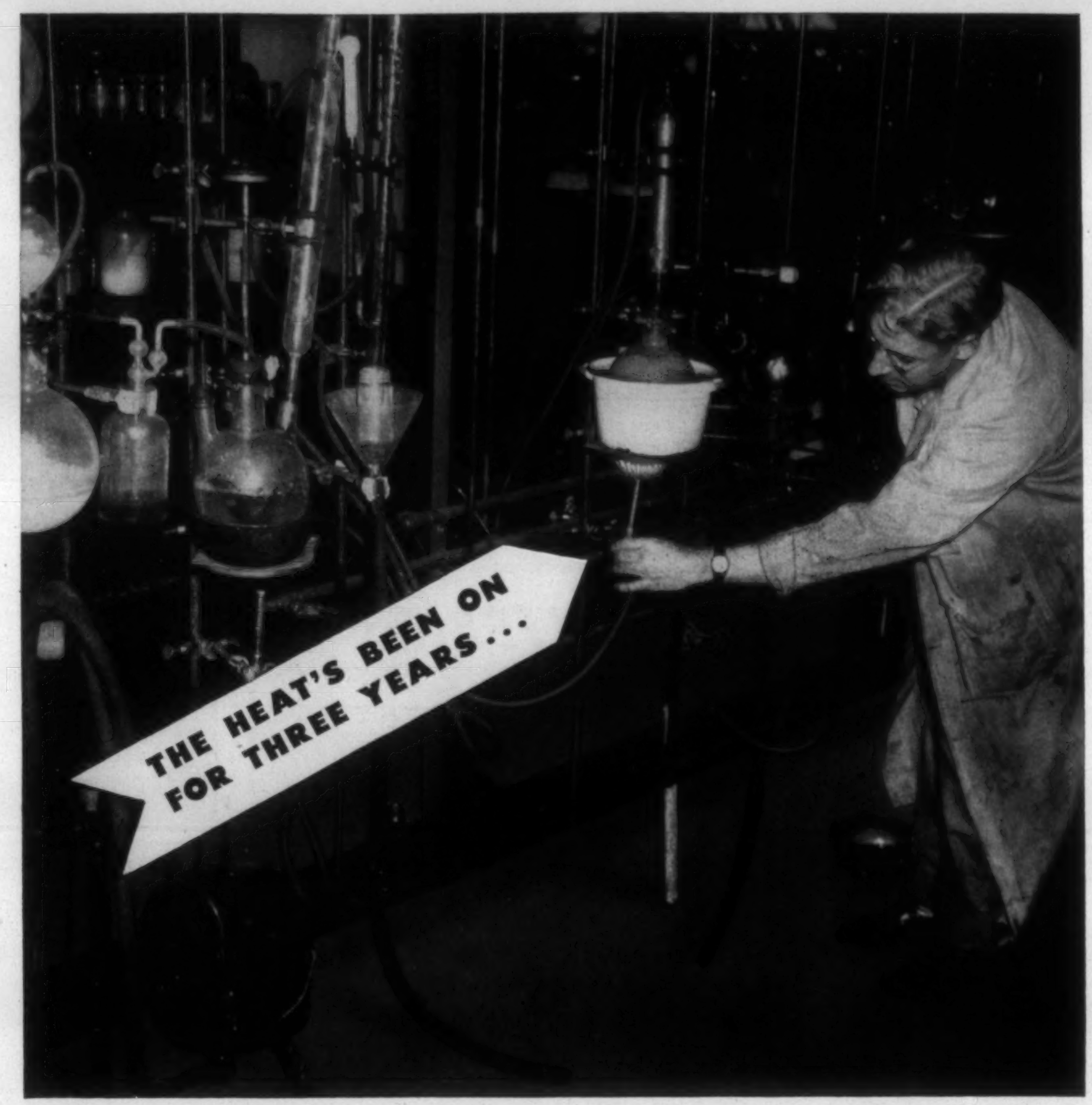
SPINCRAFT is the only endless leather belt prefabricated with a longer outer ply to compensate for this differential.

SPINCRAFT is made endless only, in light and medium weights, doubles up to 6" wide, to specified lengths. For short center spinning frame and other textile drives. SPINCRAFT is also "broken in" on a special apparatus before shipment. This assures immediate efficient operation without the usual break-in period. SPINCRAFT is made from the famous 3-STAR leather with its particular qualifications for textile work.

¶ *Further information about this new endless leather belt and its application to your short center drives will be gladly given.*

CHARLOTTE
LEATHER BELTING COMPANY
★
CHARLOTTE, NORTH CAROLINA

Published Semi-Monthly by Clark Publishing Company, 218 W. Morehead St., Charlotte, N. C. Subscription $1.50 per year in advance. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.


THE HEAT'S BEEN ON FOR THREE YEARS...

Houghton labs are ready for this new textile age

Above is a section of the Houghton Research Laboratories where organic research leading to development of textile processing products has been carried on throughout the war. With Victory and the release of scarce basic materials, this research now enters its final phases.

Soon the textile industry will be offered new finishes, softeners, permanent water repellents, synthetic detergents and surface active agents—all will be far superior to pre-war products. For advance data, write E. F. HOUGHTON & CO., Philadelphia or Charlotte.

Houghton's war-born products for the peacetime job

WHAT MAKES THEM

★do better drafting . . .

★give longer service?

Among various apron types, it's Lawrence Calfskin — chrome-tanned or bark-tanned — that is selected more often than any other.

Mills prefer Lawrence Calfskin because it has proved to them, over a period of many years, that its natural drafting surface gives results that have never been equalled by other apron materials.

It wears longer, too, because the tight-packed grain surface next to the yarn has the natural strength to resist both the constant flexing and the tension or pressure exerted on the apron.

Furthermore, mills like the convenience of having aprons open-end so that they can be installed quickly, even in bottom positions, without having to tear down the frames or mix up apron types.

So, for convenience, use leather aprons . . . for performance and long life, specify Lawrence Calfskin—chrome-tanned or bark-tanned.

LAWRENCE CALFSKINS

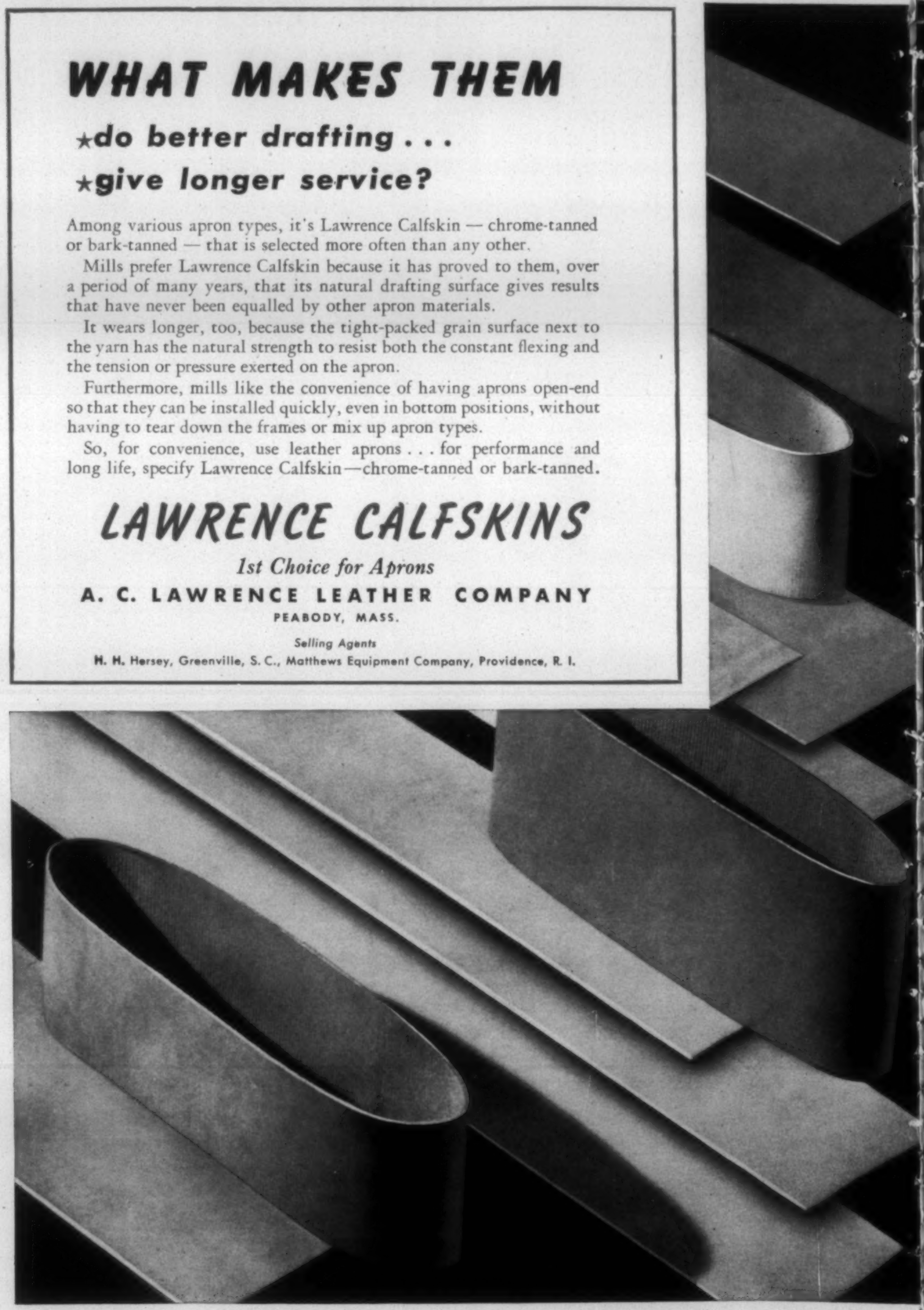
1st Choice for Aprons

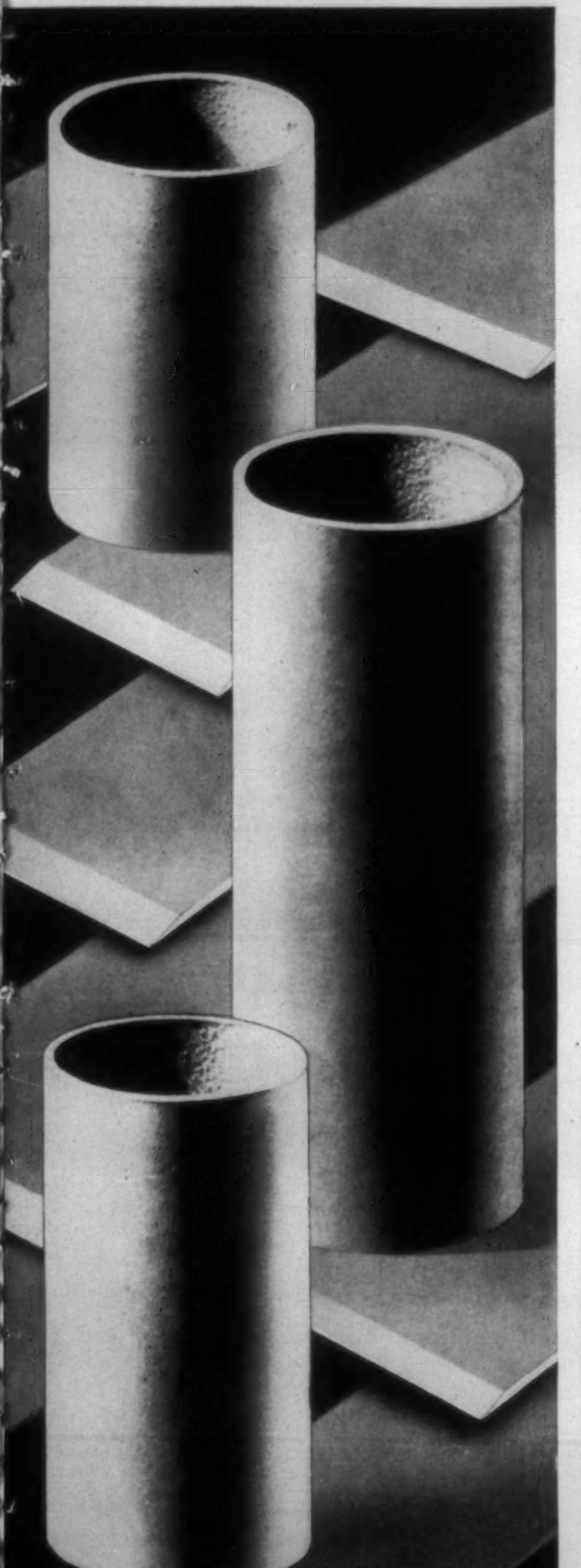
A. C. LAWRENCE LEATHER COMPANY

PEABODY, MASS.

Selling Agents

H. H. Hersey, Greenville, S. C., Matthews Equipment Company, Providence, R. I.

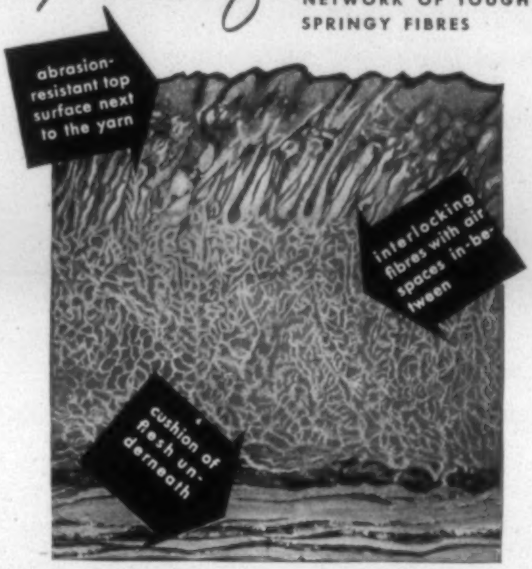




TROUBLE FROM ANY DIRECTION

...resisted by Spinna's triple-resiliency

Spinna Calf.. AIR CUSHIONS IN A NETWORK OF TOUGH SPRINGY FIBRES


abrasion-resistant top surface next to the yarn
interlocking fibres with air spaces in-between
cushion of flesh underneath

When an ordinary hard end comes along, Lawrence's Spinna Calf takes it without permanently grooving. It recovers its original smooth surface without delay.

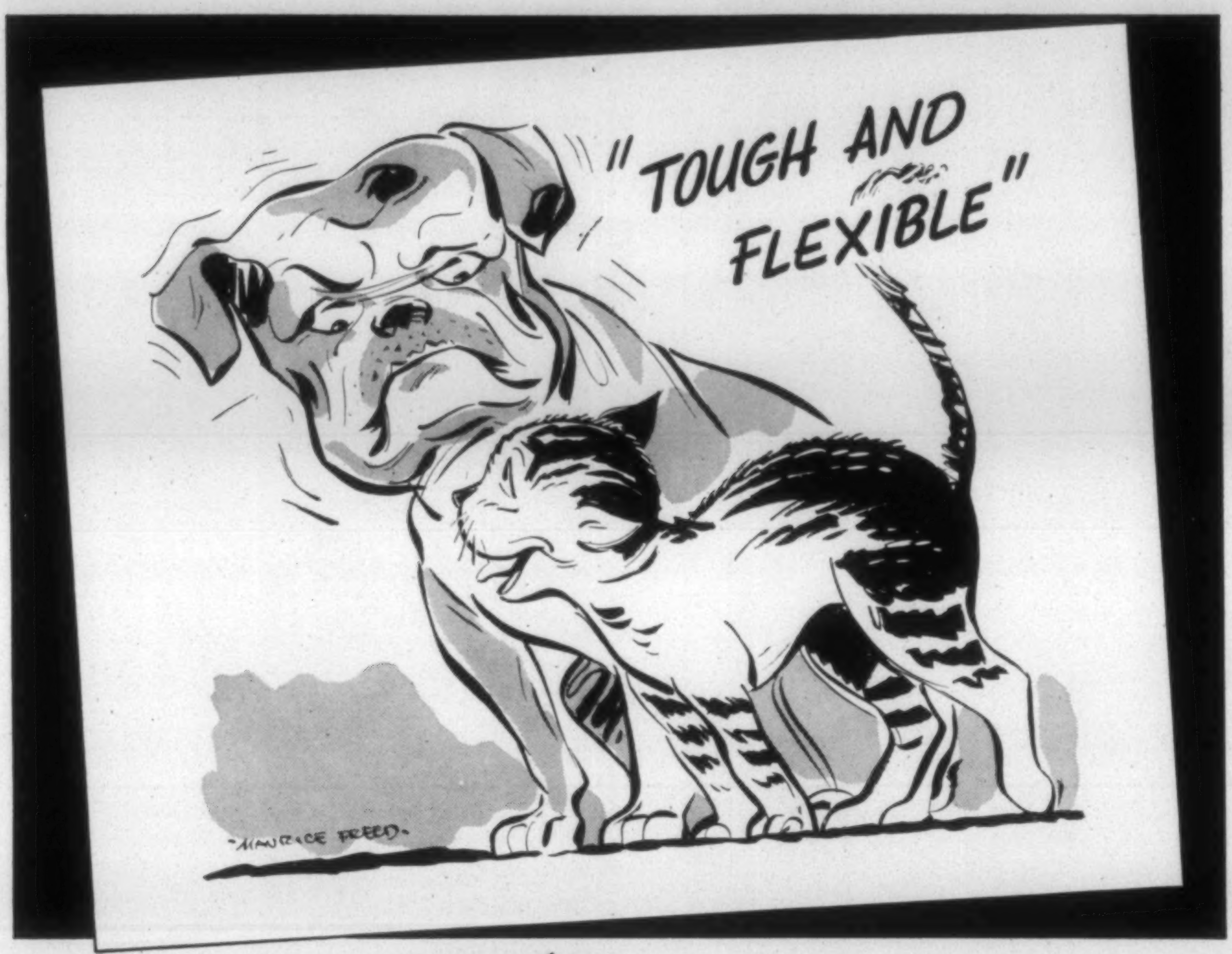
When the traversing yarn pushes the covering toward the end of the roll, Spinna Calf springs right back into shape. It resists hollowing-out much longer than less resilient materials.

To avoid these troubles that shorten roll covering life, specify Spinna . . . and benefit also from a high-friction surface that improves spinning efficiency. It stays kind to the yarn for up to 18 months and more, even in front positions.

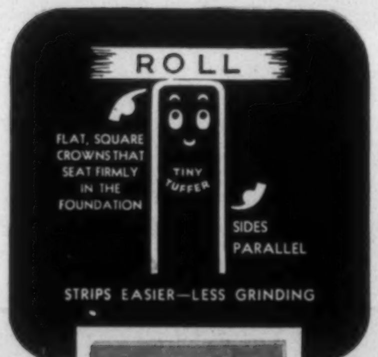
That's why Spinna is the calfskin most generally used.

A. C. LAWRENCE LEATHER CO. RELIABLE LEATHERS PEABODY MASS.

Lively
SPINNA · CALF
ROLL COVERINGS
it's Triple Resilient



... that's *Tufferized* Card Clothing


ROLL
FLAT, SQUARE CROWNS THAT SEAT FIRMLY IN THE FOUNDATION
TINY TUFFER
SIDES PARALLEL
STRIPS EASIER—LESS GRINDING

Yes, a bulldog *is* tough—and a friendly, willowy cat *is* flexible—but Tufferized Card Clothing, made from the finest steel wire, is especially tempered for *both toughness and flexibility!*

And because it is so evenly and so accurately placed in the famous Tuffer foundation, it is easier to strip . . . stays on the job with fewer grindings! It all adds up to greater production and lower carding costs!

Card Clothing for Woolen, Worsted, Cotton, Asbestos, and Silk Cards—Napper Clothing, Brush Clothing, Strickles, Emery Fillets Top Flats Recovered and extra sets loaned at all plants—Lickerins and Garnett Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant—Midgley Patented Hand Stripping Cards, Howard's Special Hand Stripping Cards and Inserted-Eye and Regular Wire Heddles.

TUFFER
CARD CLOTHING

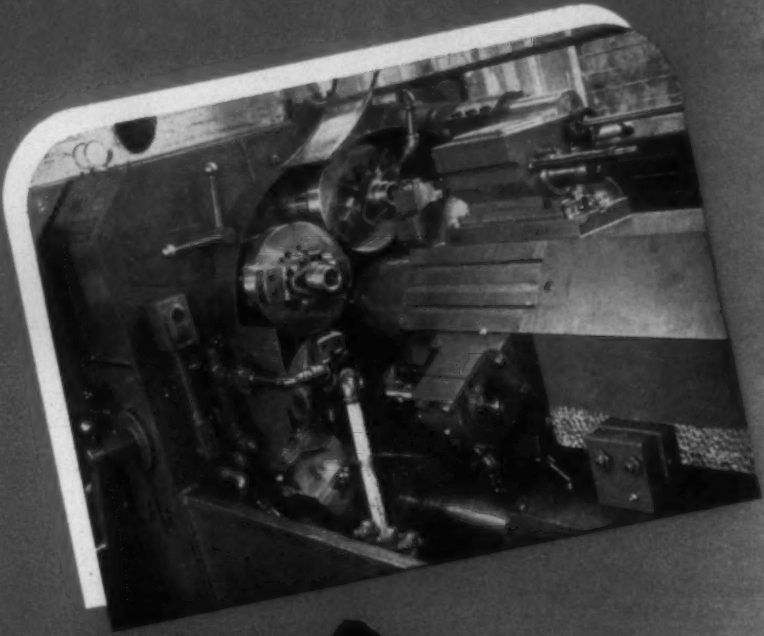
HOWARD BROS. MFG. CO.

WORCESTER, MASSACHUSETTS

Southern Plants: Atlanta, Ga., Gastonia, N. C. **Branch Offices:** Philadelphia, Austin **Canadian Agents:** Colwool Accessories, Ltd., Toronto 2

MODERN MACHINE TOOLS PRODUCE

MODERN
HIGH
SPEED
LOOMS



Only the Best of Machine Tooling is Good Enough to Meet Draper Requirements for X Series High Speed Looms

This Modern Machine Bores, Faces and Turns Pick Cam Hubs automatically from 5 machine tooling positions.

The Pick Cam Hub is held firmly and with a uniform pressure by a Hydraulic Chuck.

The Machine is set up to revolve the chuck from the loading station through 5 different tooling positions to produce a finished Hub.

Aside from placing the hub in the Chuck at the loading station, the machine is 100% Automatic.

Result—is a Pick Cam Hub as accurately finished as modern machine tooling can produce.

DRAPER CORPORATION HOPEDALE MASS

TURN TO TYCOL "Engineered

ENGINEERED SOLUTIONS TO YOUR LUBRICATION PROBLEMS *at your fingertips*

Tycol lubricants are made in a comprehensive line to meet each specific service requirement. Their performance-proved lubricating ability is the result of modern scientific engineering and rigid testing. The line includes:

DIESEL OILS of 100% paraffine base, refined by the most modern processes to eliminate unstable compounds that would oxidize in service. There is a Tide Water Associated Oil for every Diesel requirement.

TURBINE OILS with great stability and resistance to emulsification . . . free from sludge-forming hydrocarbons . . . engineered to inhibit Rust.

CYLINDER OILS refined from 100% Pennsylvania Crude. They have exceptionally high resistance to breakdown under high temperature operation.

SPECIALIZED INDUSTRIAL LUBRICANTS for all types of machinery in all types of industry — from steel to textile.

GREEN CAST GREASES, made from paraffine base cylinder oil with a minimum of soap . . . extremely economical, giving greater lubrication per pound than do conventional greases.

VEEDOL MOTOR OIL, refined from 100% Pennsylvania Crude by Tide Water Associated's triple-refining process, which produces that tough "film of protection" — famous all over the world.

Any Tide Water Associate office will help you select the oil or grease best suited to your needs.

Drums! Drums! Drums!
War needs make it imperative that all empty drums be returned immediately.

TYCOL

TYCOL INDUSTRIAL

ENGINEERED FOR EVERY

Lubrication"

FOR GREATER SERVICE...LONGER LIFE

from everything that TURNS!

All equipment will last longer — give better service — if the proper lubricant is used. That's why you will find it profitable to use Tycol oils and greases.

There's a reason! No matter what your lubricating need — extreme pressure*, high or low temperature, high speed, or any other service condition — there's a Tycol Oil or Grease scientifically engineered exactly to suit your specific requirements.

Refined from the highest grade crudes, Tycol lubricants are exceptionally resistant to breakdown which means greater economy . . . longer machine life for every type of equipment.

Tide Water Associated engineers will gladly recommend the Tycol lubricant that meets your particular requirements. Call, write or wire your nearest Tide Water Associated office today.

Makers of the Famous VEEDOL Motor Oil

***EXTREME PRESSURE!** For clear, concise descriptions of the basic tests used to determine important lubricant properties — Viscosity, Pour Point, Extreme Pressure and many others — consult Tide Water Associated's informative handbook "Lubricania". For your FREE copy write: Tide Water Associated Oil Company, 17 Battery Place, New York 4, N. Y.

UBRICANTS
ERVICE NEED

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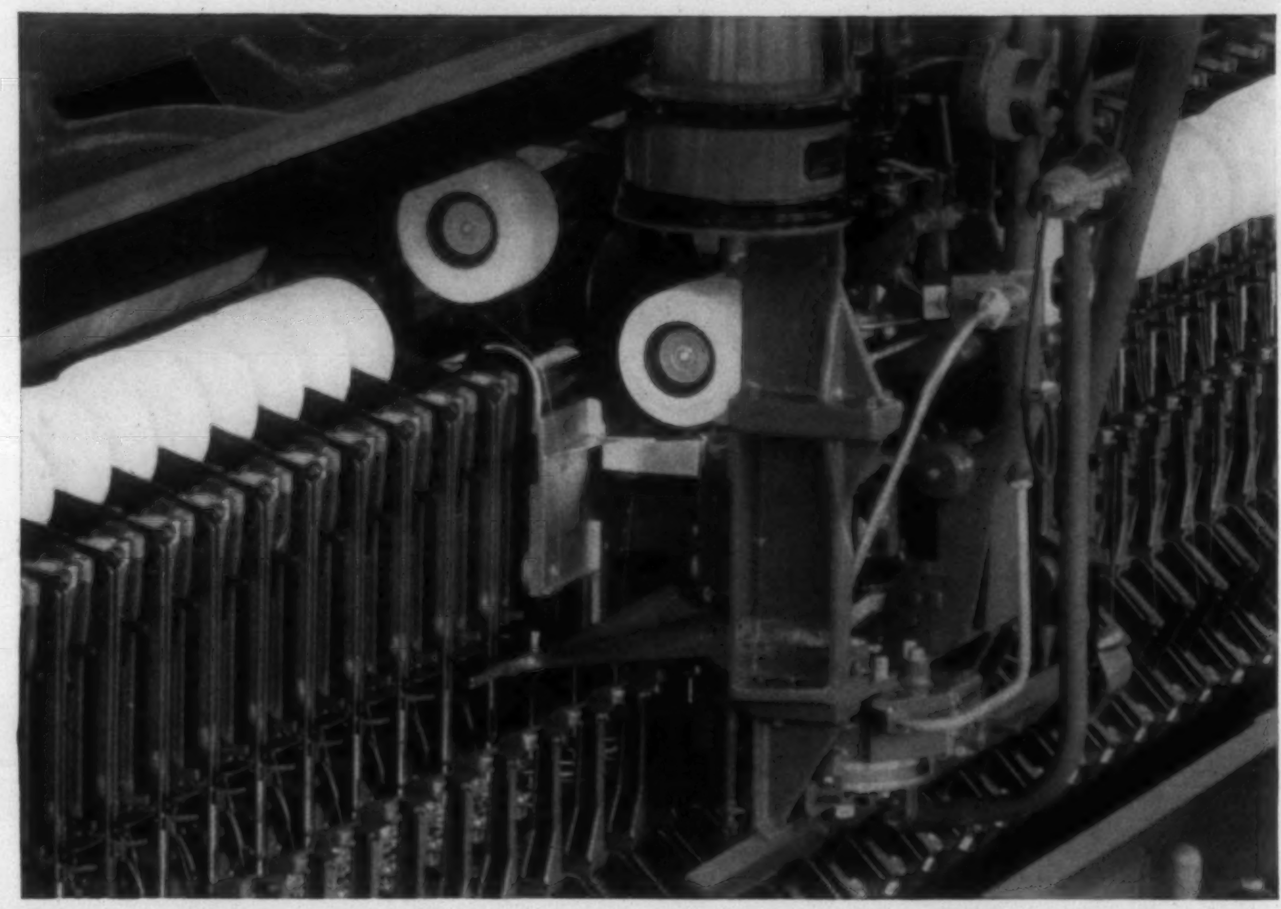
PRINCIPAL OFFICES
BOSTON · PHILADELPHIA
PITTSBURGH · CHARLOTTE, N. C.

BARBER-COLMAN AUTOMATIC SPOOLER



THIS machine delivers a better package to the warper, resulting in better beams to the slashers, better loom beams to the weave shed, and better cloth to the finishers. This means less warper stops, more efficient slashing, fewer loom stops, and less seconds — all valuable advantages in the coming competitive market. Barber-Colman equipment has proved its ability to increase production and lower costs; experience has shown that it gives very little trouble, requires few repairs and very few service calls, and delivers a uniform package steadily with a minimum of down time. *Ask your Barber-Colman Representative for complete information.*

..THIS MACHINE IMPROVES THE QUALITY OF EVERY FOLLOWING STEP IN CLOTH PRODUCTION

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND

preview

Mixed fabrics of natural and synthetic fibers . . . new fibers of glass, aluminum and steel, our Technical Service Laboratory knows them all. Trouble shooters are ever working out formulae for coloring and finishing. Our clients like the way our technicians project their thinking and the accuracy of their conclusions.

GDC

GENERAL DYESTUFF CORPORATION
435 HUDSON STREET · NEW YORK 14, NEW YORK
BOSTON · CHARLOTTE · CHICAGO · PHILADELPHIA · PROVIDENCE · SAN FRANCISCO

a CHEMICAL for COTTON

1 *The* PRODUCT

VIRGINIA HYDROSULPHITE

$Na_2S_2O_4$

VIRGINIA HYDROSULPHITE is a concentrated, white, stable, free-flowing, uniformly crystalline powder, readily soluble in water. 100 lbs. of water at 68° Fahr. will dissolve 21.8 lbs. $Na_2S_2O_4$.

2 *Its* USES

DYEING WITH INDIGO AND VAT DYES: VIRGINIA HYDROSULPHITE has merit as a reducing agent in dyeing with indigo and vat dyes, because of its easy and complete solubility, and carefully controlled particle size. The addition of Virginia Hydrosulphite to dyeing machines in small increments is easily handled because dusting is reduced to a minimum.

DECOLORIZING DYED FABRICS: VIRGINIA HYDROSULPHITE is particularly efficient as a chemical reducing agent for the removal of dyestuffs from fibres because of its easy and complete solubility, and its controlled particle size.

VIRGINIA HYDROSULPHITE IS advantageously used as a general bleaching agent of soap, sugars, oils, minerals, straw and various fibres. The stronger and more efficient the reducing action, the more complete is the bleaching effect.

SHIPPED in sealed packages, ICC specifications 21-A or 37-E.

Gross weight . . .	269 lbs.
Net weight . . .	250 lbs.
Outside diameter . .	17¾ in.
Outside height . . .	25 in.

SHIPMENT will be made from West Norfolk, Va., in Carload or Less Carload lots; L. C. L. shipments from stocks at Boston, Chicago, New York, Philadelphia, Charlotte and Atlanta.

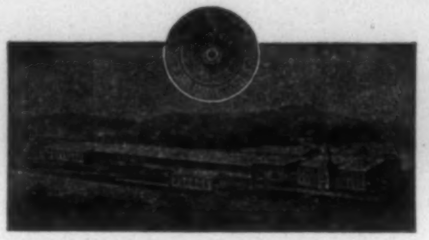
V VIRGINIA

VIRGINIA SMELTING CO.
WEST NORFOLK, VIRGINIA

WILLIAM R. NOONE & CO.

A. ERLAND GOYETTE, President
ARNOLD T. MALONE, Treasurer

105 Washington St. Boston, Massachusetts



Established 1831

NOONE'S
Standard Slasher Cloths

Ask for NOONE'S SLASHER CLOTHS by name or style number.

Long experience in manufacturing Slasher Cloths and continuous experimenting have enabled us to produce several types of Slasher Cloth, each especially constructed to give best results on the particular kind of yarn to be sized.

The proper Slasher Cloth for each type of yarn means properly sized warps, less loom stops, easier weaving, more and better production, and lower cost. We can supply you the right cloth for your particular work. On request, we will have our representative call and discuss Slasher Cloths with you.

We are the oldest manufacturers of Slasher Cloth in America. Our experience enables us to build a Slasher Cloth that will meet your most particular demand. Use NOONE'S SLASHER CLOTHS and be convinced.

Sole Agents For

The Joseph Noone's Sons Co.

Peterborough - - - - - - New Hampshire

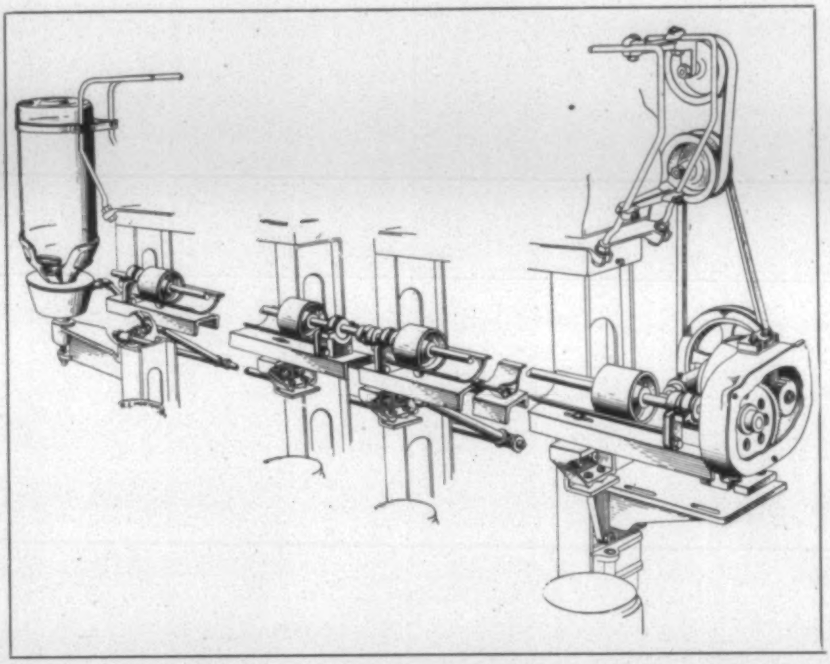
Use

NOONE'S ROLLER CLOTHS
NOONE'S SLASHER CLOTHS
NOONE'S CLEARER CLOTHS

THIS IS NO. 53 OF A SERIES ON

GETTING THE MOST FROM WINDING

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation



FRONT-LINE EMULSION with Semi-Circular Trough
(No. 50 Winding Machine)

To meet the increased demand for oiling synthetic yarns — particularly rayon and nylon — an improved No. 50 Front-Line Emulsion Attachment has been developed, incorporating a semi-circular trough.

The entire attachment has been designed to keep tension at a minimum. The yarn travels in nearly a straight line from supply tube, up through an auxiliary tension guide and past the Emulsion Roll. Yarn contact points are few to minimize friction.

The Emulsion Roll is designed and mounted so that it will always stay in alignment even if jarred by a severe blow. The trough is attached rigidly to a channel iron. The roll, rotating within the trough, is supported by oilless wood bearings which totally surround the shaft at each end and by an adjustable semi-circular one at the center. The end bearings are held in place by clamps.

The advantage of the semi-circular trough is that, with the smaller reservoir, there is less volume of oil subject to collection of dust or contamination. The oil is kept at a constant level by means of a leveling attachment, which may be located at either end of the row and from which the oil is delivered to the trough by a pipe running along the back of the machines. To drain the oil, a plug at either end of the supply pipe is removed.

The amount of oil pickup is easily and definitely controlled by varying the speed at which the roll turns and by the arc of contact which the yarn makes with the Roll which should always be maintained at 5°. Roll speeds from ½ a turn to 7½ turns per minute are available by changing the two gears which drive the Emulsion Roll, and which are totally enclosed within a gear housing. Only one set of two gears for each speed is necessary.

The attachment is powered by means of a V-belt Positive Drive which is driven directly from the lower End Idler Pulley on the Straight-Belt Drive. Flexible couplings between roll shafts permit coupling up to six machines together, in which case the V-belt drive usually is placed at the end of a row of machines. However, it is possible to place it in the center of the row or between any two pairs of machines.

The trough should be cleaned every three months. This is easily accomplished by removing the Bearing Clamps and the Change Gear on the Emulsion Roll Shaft. The entire Roll Shaft can then be lifted from the machines. If only one section is to be removed, it can be disconnected at the Flexible Coupling and taken out without disturbing the balance of the Shaft.

*Reg. U. S. Pat. Off.

See our Catalog in TEXTILE WORLD YEARBOOK
23.5.12

"THERE'S A UNIVERSAL WINDER FOR EVERY TEXTILE NEED"

UNIVERSAL WINDING COMPANY

PROVIDENCE BOSTON PHILADELPHIA UTICA CHARLOTTE ATLANTA

Greater Worker Comfort —

TEXTILE POSTWAR SPECIFICATION No. 1

BAHNSON CONDITIONED AIR

Production goes up and fatigue losses go down, along with seconds, breakage, and all the minor overhead increases and labor problems that come at the end of a shift working under the handicap of imperfect atmosphere conditions.

Bahnson Engineers know textile air conditioning through experience—its needs, its problems, and its solutions. To this they have added their own years of research and laboratory testing of equipment. When you specify Bahnson Conditioned Air you get engineering "know-how" plus the finest equipment.

Bahnson System

POSITIVE CIRCULATION

LOWER OPERATING COST

AIR CONDITIONING ENGINEERS

THE BAHNSON CO. WINSTON-SALEM, N. C.

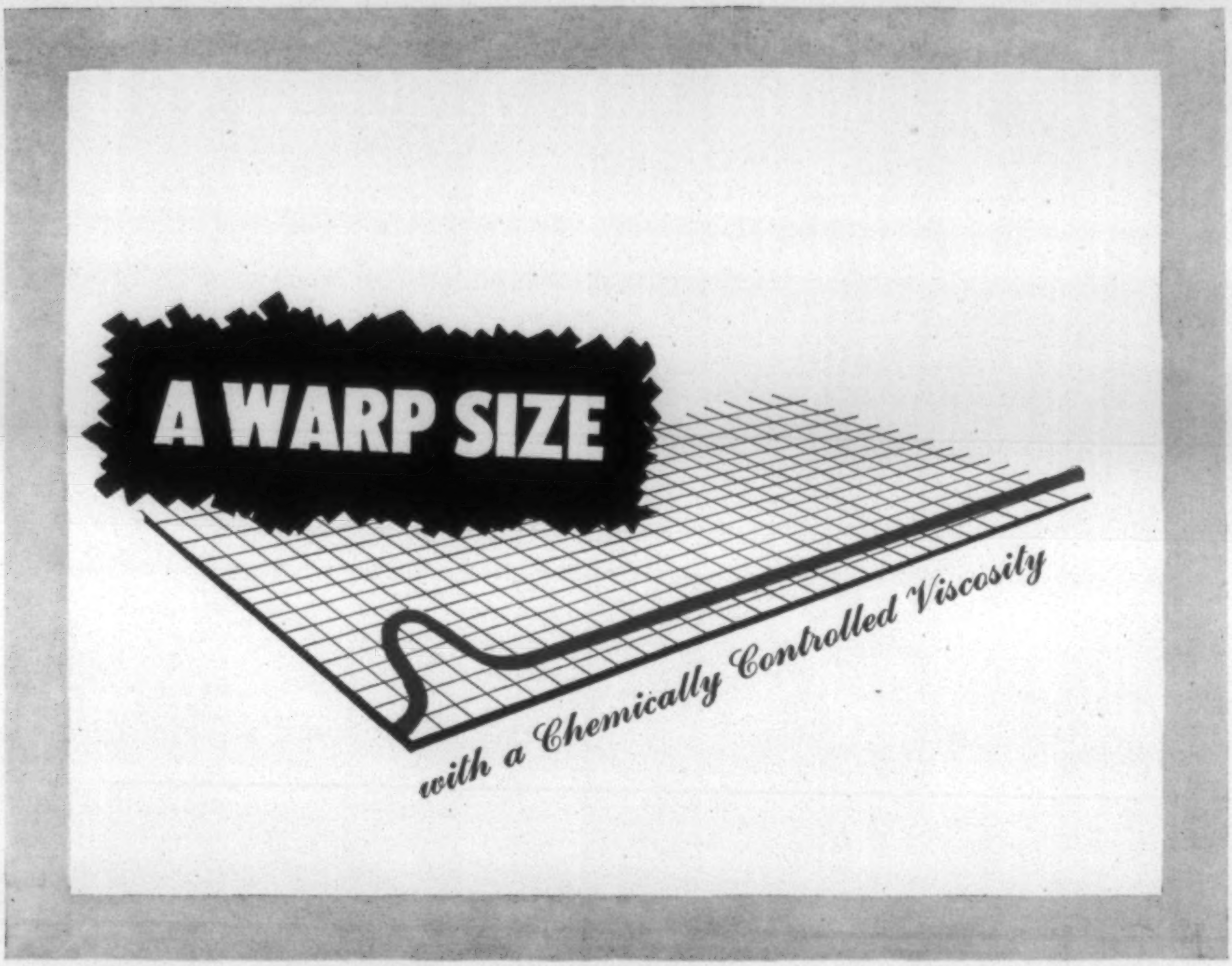
886 DREWRY ST.
ATLANTA, GA.

93 WORTH ST.
NEW YORK CITY

553 S. FIGUEROA ST.
LOS ANGELES 13, CAL.

703 EMBREE CRESCENT
WESTFIELD, N. J.

W. J. WESTAWAY CO., LTD.
HAMILTON, ONTARIO


A WARP SIZE
with a Chemically Controlled Viscosity

NALEX is a chemically refined warp sizing starch for fine cotton yarns and worsted yarns. Every batch will cook up to the same viscosity with only a 30 minute boil. And that viscosity will remain nearly constant in the size box and storage kettle — thereby insuring uniform sizing.

Viscosity largely controls the degree of warp size pick-up. Too low a viscosity means . . . insufficient size . . . inadequate film . . . excessive shedding, balling up and loom stoppage. Too high a viscosity means . . . excessive size . . . insufficient penetration . . . hard, brittle yarns lacking the flexibility needed for good weaving. Too varying a viscosity means . . . those soft spots so dreaded by all weaving superintendents.

— with NALEX, these operating difficulties are eliminated by a chemically controlled viscosity. The vagaries of Nature . . . caprices of weather and soil — *reflected in less fully processed warp sizes* — have been refined out of Nalex. As a result, it is uniform . . . batch to batch . . . hour to hour. Yarns sized with Nalex are strong, smooth and pliable . . . shed less . . . and produce grey cloth that has a pleasing appearance and hand.

NALEX is readily available at savings from $500 to $1,000 a carload over ordinary warp sizes. It uses 50% less softener for regular sizing; none for light sizing . . . needs no enzymes or chemicals to adjust its accurately controlled viscosity. Ask for a trial demonstration. A National technician can run off a few beams without upsetting production.

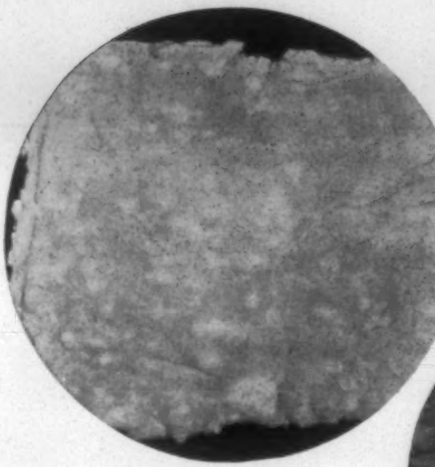
National
STARCH PRODUCTS

National also produces: FIBERJEL AC, a warp size for both filament and spun Acetate and Viscose Rayon yarns; HOOSIER Pearl Cornstarch; FLOJEL, uniform, thin boiling corn starches in all standard fluidities; FIBERTEX for textile finishing; and KOVAT, a cold water swelling gum for vat and discharge printing.

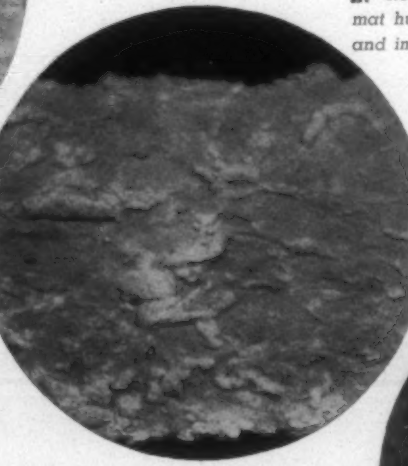
Offices: 270 Madison Avenue, New York 16; Boston, Philadelphia, Chicago, Indianapolis, San Francisco, and other principal cities. In Canada: Meredith, Simmons & Co., Ltd.; Toronto and Montreal.

STARCHES — AND SPECIALTIES WITH EASILY DEMONSTRATED SUPERIORITY

Air leaving the Saco-Lowell Air Filter is DUST-FREE



1. *Top side of the mat removed from the screen of the #6 Air Filter showing how the impurities from the air are used to build up an efficient filtering medium.*



2. *Reverse side of same mat showing how mat hugs screen preventing leakage of dust and impurities.*

3. *Showing fine particles of dust and other impurities that have passed through the filter mats, (Figs. 1 and 2)—but have been removed by the finely woven filter cloth in the terminal section.*

Remember, these microfine particles of dust are an ever-present menace to the health of your operators—are a fire hazard—and also can affect the efficiency of your equipment by settling on the moving parts of your machinery.

The Saco-Lowell Air Filter means the end of the dangerous, disease-breeding dust room. Now for the first time, the recirculating air in the opening and picker room can be fresh, clean, and free from impurities.

Tests have shown that in the Saco-Lowell Model 6 Air Filter the tightly woven terminal filtering medium removes from the air stream the most minute particles of *silica oxide* and other seriously harmful impurities. This principle of air filtration, developed by Saco-Lowell, has been effectively incorporated in the Model 6 assembly.

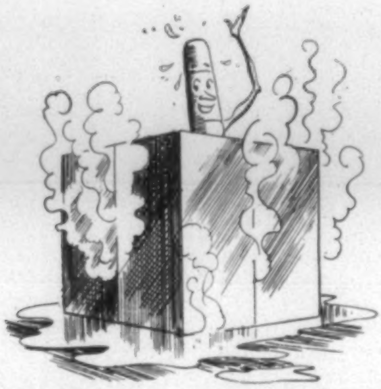
There can be no doubt that this new development will bring an end to the conventional dust cellar which is such a natural breeding ground for disease as well as a constant fire menace.

Our engineers have some facts on this Air Filter which we are sure you'll be interested in looking over. A card to any one of our offices will bring you the complete story.

SACO-LOWELL SHOPS

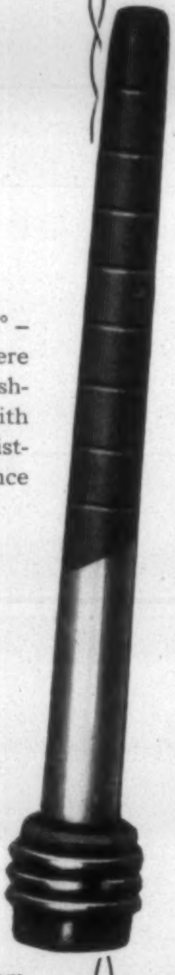
BOSTON, MASSACHUSETTS · Charlotte · Greenville · Atlanta

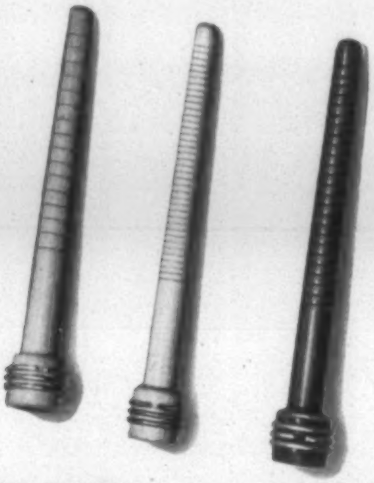
HOW TO PICK A BOBBIN that can "sweat out" conditioning . . .



A "STEAM BATH" at temperatures up to 200° – necessary in some rayon processing – is a severe test for the toughest bobbins. To take this punishment, U S builds a super-resistant bobbin with special transparent enamel finish, and rust-resisting rings and brass bushings, that has long since proved it can "sweat it out" and stay in service.

FOR INTERMEDIATE CONDITIONING, where temperatures hit 150°, you'll find the U S 150 finish stands up to your best expectations. For Hygrolit conditioning of filling yarns, the USSR finish has exceptional durability. U S Bobbins also withstand the warping effect of conditioning heat and moisture because they are made from straight grain *split stock,* and scientifically seasoned.





THE HIGH POLISH necessary to prevent filling from catching while winding and unwinding is assured by the USSRC finish. It is especially suitable for fine numbers of soft twist yarns. For coarse numbers, the USSR finish offers the proper smoothness. In any style bobbin, U S can meet the highest standards of precision.

IF YOU'VE HAD TROUBLE getting the performance you want from bobbins, tell a U S representative your requirements, and he'll help you select U S equipment that will stand up longer and lower your costs, – whether you need Bobbins, Shuttles, Cones, Rolls, or Spools. You'll find him thoroughly equipped to advise you on any phase of processing any fiber.

US BOBBIN & SHUTTLE CO.

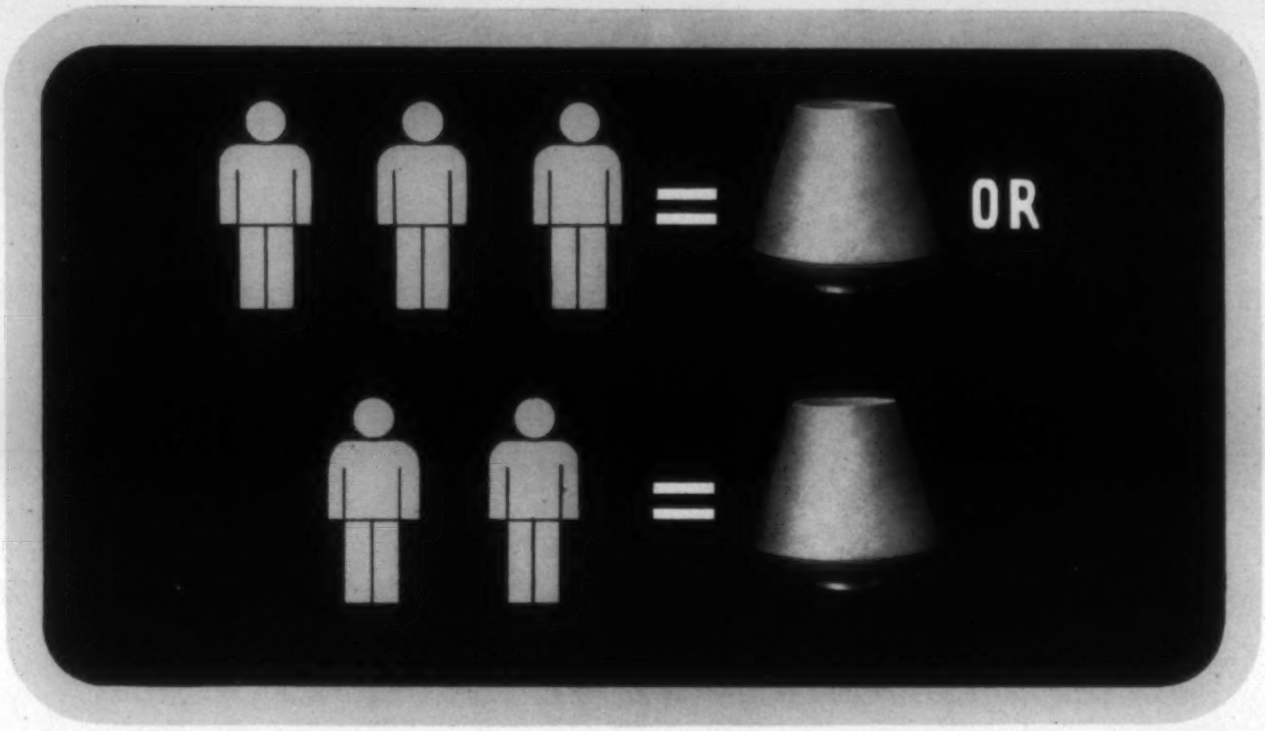
PROVIDENCE, R. I.
GREENVILLE, S. C.
CHICAGO AGENT:
Albert R. Breen,
80 E. Jackson Blvd.

LAWRENCE, MASS.

CANADIAN AGENT:
W. J. Westaway
Montreal, Que. — Hamilton, Ont.

JOHNSON CITY, TENN.
CHARLOTTE, N. C.
ALABAMA AGENT:
Young & Vann Supply Co.
Birmingham

THE SEAL OF QUALITY AND SERVICE SINCE 1857
ESTABLISHED 1857



3 AND 1 OR 2 AND 1?

With obsolete winding machines, three operators are required to produce cones at the rate of one per given period of time. With Foster Model 102 winding machines, two operators will produce a cone in the same period of time. What is YOUR ratio of labor to production — 3 and 1, or 2 and 1?

OTHER SAVINGS

Of course, production and labor saving are not the only factors to consider; so note these other important savings:

MAINTENANCE COSTS are very low, since specially trained, highly paid mechanics are not required to keep the Model 102 in working order, or to make adjustments.

REPAIR COSTS are cut, because the Model 102 is rugged, like all Foster Machines. They are as low as $3.50 per year per 100 spindles in some cases.

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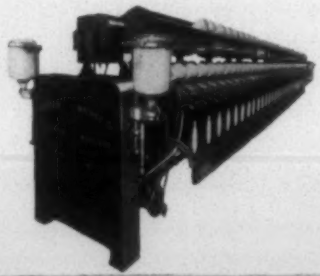

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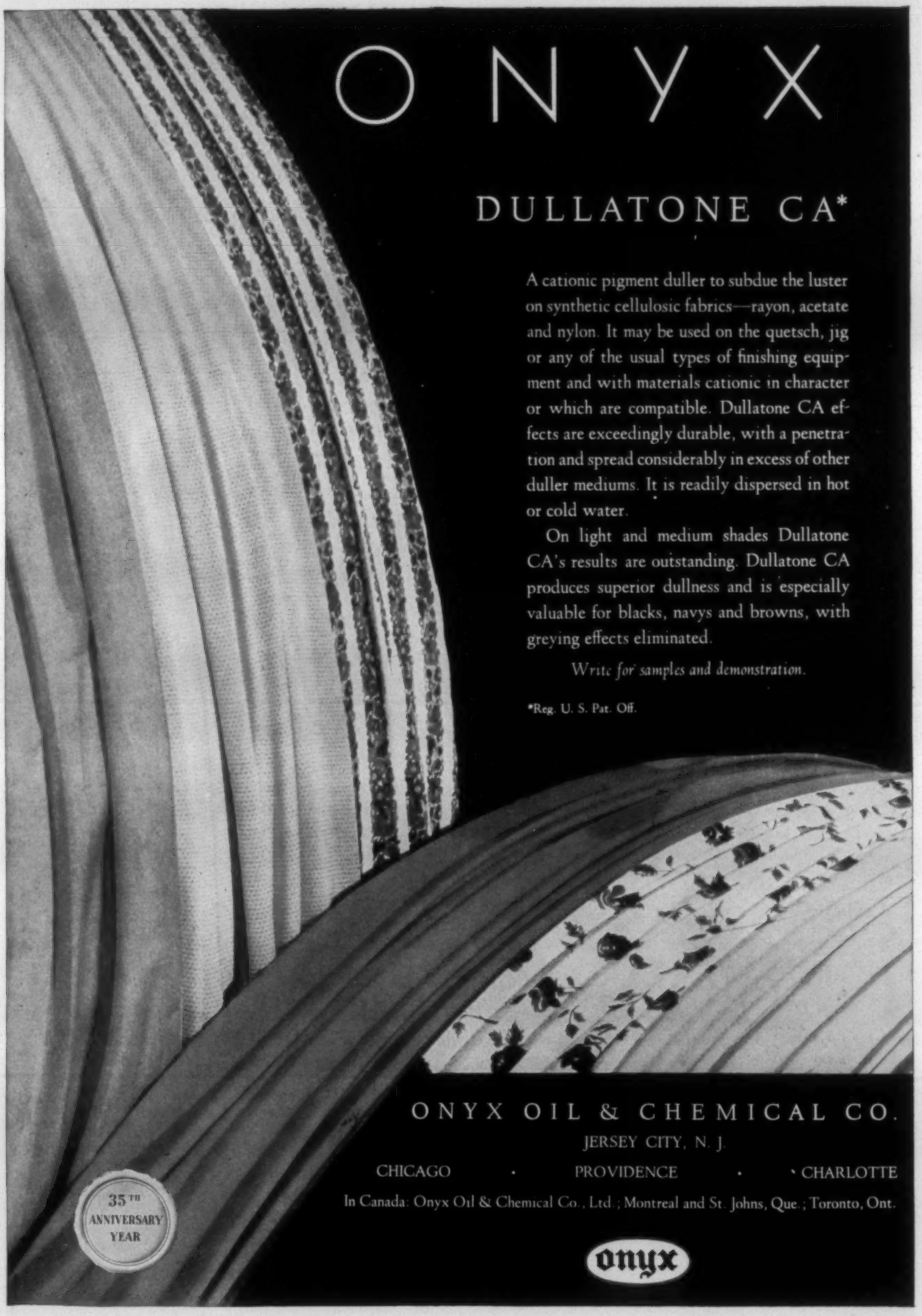

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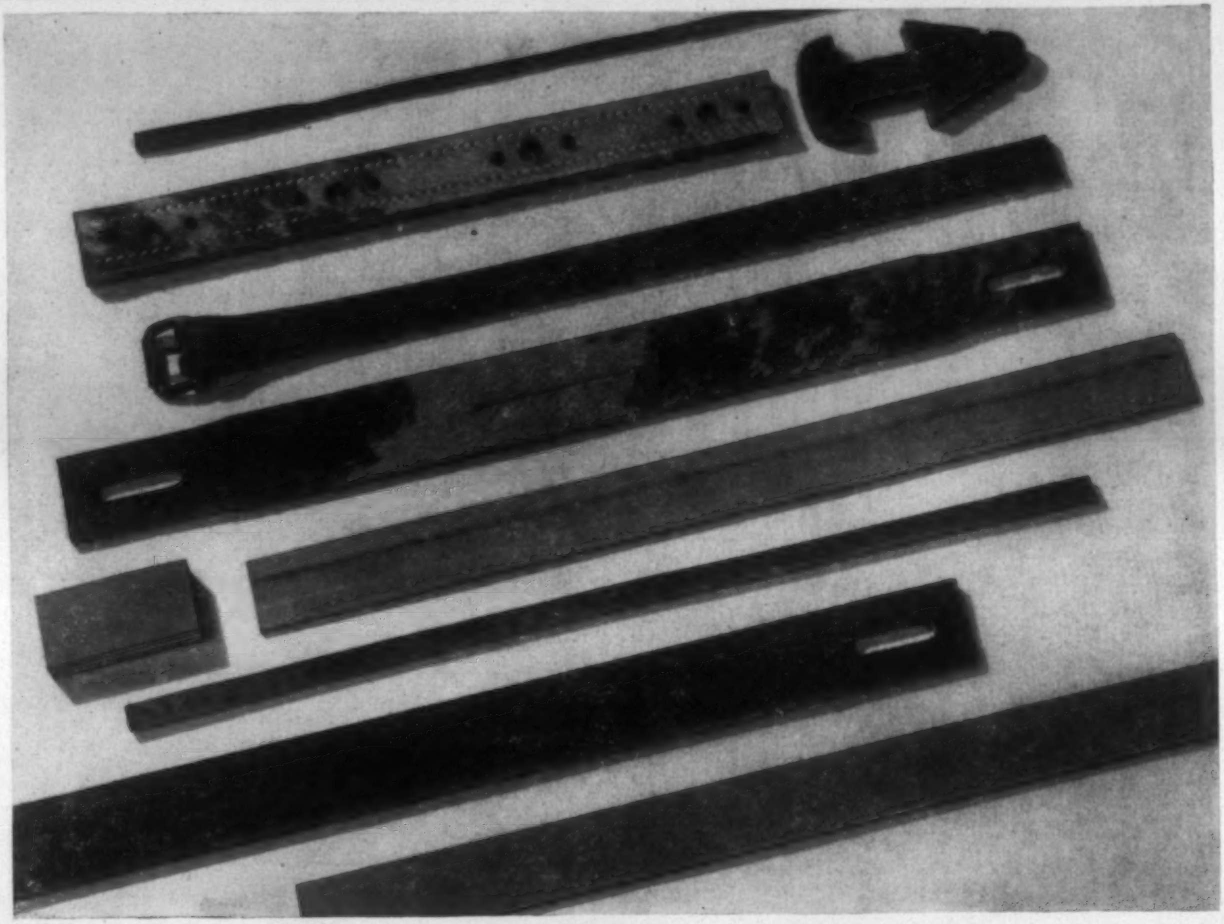

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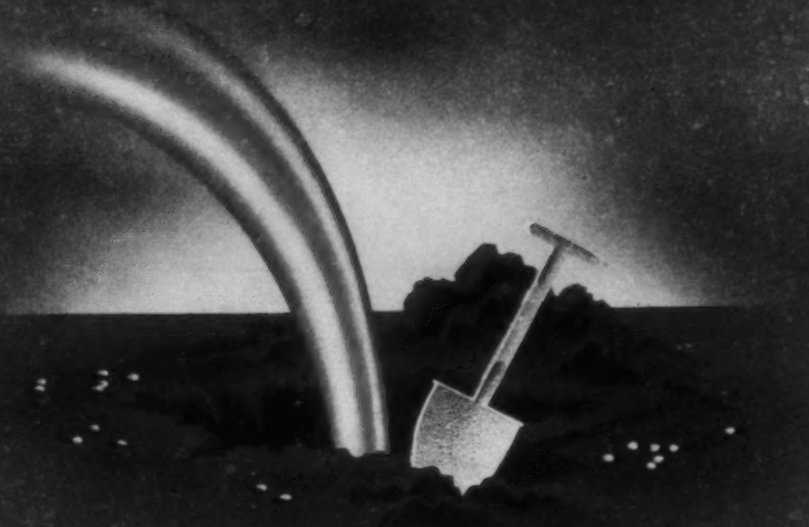

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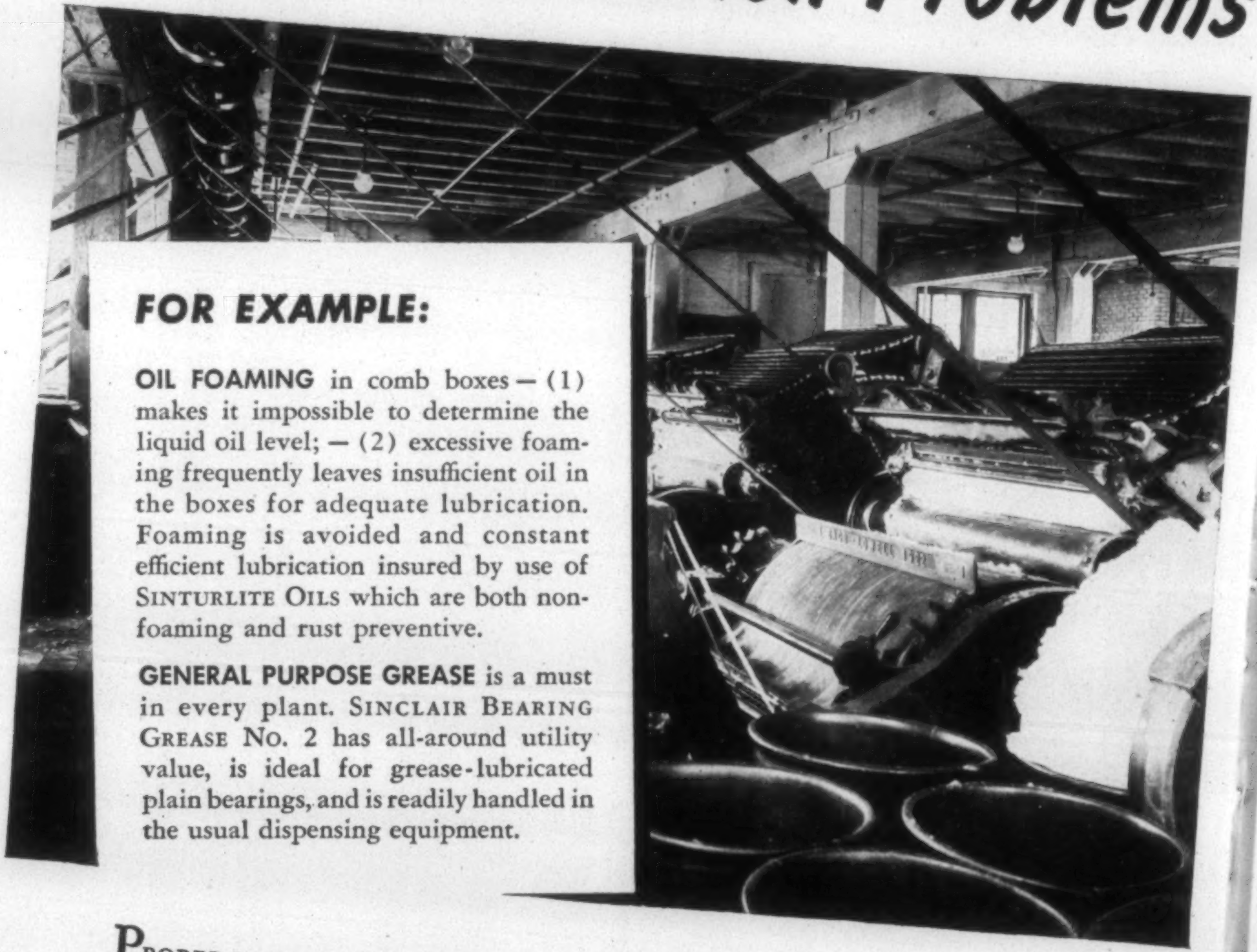

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textile bulletin

Vol. 69 October 15, 1945 No. 4

German Textile Developments

The reports of the textile team sent to Germany by the Office of the Quartermaster General were announced by the War Department at an industry meeting held Oct. 2 in New York City. The papers presented by field investigators at the meeting constituted a preliminary report to the textile industry; they cover textile fiber, fabric and finishing aspects of the general survey of technical and research developments in the German textile industry by two groups of research investigators. Three reports are presented in this issue; others will follow Nov. 1.

Introduction of Papers

By LIEUT.-COL. J. S. KENNEDY
Quartermaster Corps, U. S. Army

OFFICIAL government statements in recent weeks have told a great deal about the industrial intelligence missions which began operating in Germany immediately after occupation by Allied troops and which are still at work there. Some of the reports of these missions have already been made public and within a short time a great many more will have been released to American industry.

In textiles, although no developments of spectacular importance were to be expected, there was good reason to believe that the Germans had made significant technical progress. Analyses of captured enemy uniforms and equipment sent to us in a steady stream by observers of our office overseas had shown considerable ingenuity along lines different than were being followed by technologists in this country, in cloth production and finishing as well as in fiber manufacturing and processing.

When the first plans for this investigation were made, military necessity required the concentration of attention upon developments of military importance which might be applied to the improvement of Quartermaster textiles for the war in the Pacific. The first group of investigators which was accordingly formed to send to Germany was given a specific directive to look for developments of military importance. This group was sent under the auspices of the Combined Intelligence Objectives Sub-committee of the Joint Chiefs of Staff. The mission was planned as a combined British and American investigation covering industrial targets in Germany of definite military significance.

The initial team, formed under the leadership of Joseph P. Meierhans, a member of the advisory board of the research and development branch, Office of the Quartermaster General, and a consultant of this office throughout the war on fabric development, was the first group in Germany specifically operating under a directive to investigate textile industrial targets.

In recognition of the broader interest of American industry in Germany than would be covered by a strictly military mission, or missions concerned with the investigation of military targets, the Technical Industrial Intelligence Committee was formed, with the broader objective of obtaining technical information relating to every phase of the German textile industry.

It will be seen accordingly that the government has been interested from two distinct standpoints in the investigation of the German textile industry: first, to discover whatever the Germans had learned about military equipment which could be applied in our own textile research program for the improvement of U. S. Army clothing and equipment; second, to obtain for the American textile industry what German research had discovered that would advance our technology and improve our production methods and products. It might appear that there would be some overlapping of activities of these two groups. However, by assigning the responsibility of steering member and executive secretary of the TIIC textiles sub-committee of the Office of the Quartermaster General, it was possible to plan the work of the two groups together, and thus minimize any possible duplication.

All representatives for CIOS and for TIIC have been sent over as government employees with the understanding that in accepting their appointments, they were to act solely in the interest of the U. S. Government and that they would make full disclosure of all technical information obtained to the government in accordance with established procedures.

It has been the desire of our office to see that this information is placed in the hands of all U. S. citizens interested in it as quickly as possible. In order to avoid delay in presenting to the industry the more significant findings of this textile team from our office, this meeting has been arranged. In view of the continued interest throughout the war of the men in the textile industry who have served as advisors to the research and development branch of our office and who have made available their research staffs and laboratories for work on Quartermaster research and development problems, it is considered fitting that the textile members of the advisory board of the research and development branch should sponsor this meeting, in conjunction with the Inter-Society Council for Textile Research, which represents all of the research agencies in the textile field and, through the membership of these various agencies, practically everyone interested in research in the industry.

These papers are obviously condensations of the full reports which would take far more time to present adequately than would be possible at any public meeting. They do, however, represent disclosures of how much and how little may be expected in the complete findings.

In the post-war period, the Army will have to rely to a large extent upon research in the textile industry for the development of improved military textiles. It is our hope that this meeting and the final reports to be released to the industry will stimulate improvements in textile technology which will ultimately have military applications.

Organization and Research

By JOSEPH P. MEIERHANS
J. P. Stevens & Co.

OUR instructions from the Quartermaster General's Office were to investigate all textile products, machinery and manufacturing methods, but with particular emphasis on those of military significance. We were requested to look closely into the German research work and what the Germans were thinking about for future textile products when every type of fiber, chemicals and equipment could be obtained. It was expected also that we would investigate new fiber developments and textile finishes, processes and equipment and, in general, report on textile matters which would be of value and interest to the Quartermaster General.

The textile team operated singly and in pairs, or as a group, as conditions required, in order to permit quick and broad coverings of mills, finishing plants, machinery manufacturers, testing laboratories, schools, research institutions, publishers and individuals. Initial reconnaissance reports were prepared by individuals or groups of textile team members, to record the data obtained and to furnish leads and targets for other teams in the field. We visited nearly every textile center in the American, British and French occupied territory. Except for the Leipzig and Zwockau areas, which we managed to visit before the Russian forces moved in, we did not enter the Russian territory, although we had requested permission and were anxious to investigate a number of targets, research institutions and machinery manufacturers located there.

We have recommended that the bleaching and experimental laboratories at Griesheim be staffed and operated for bleaching studies and preparation of Greenbast fibers for the cotton system. This unit is to work in conjunction with the pilot plant and staff at Denkendorf for preparing fibers, spinning yarn, weaving and finishing cloths to demonstrate practical application of the Korte Chlorination Process for the making of fine yarns and fabrics on the cotton system, such as handkerchiefs and shirting fabrics in a combination of 60 per cent rayon staple and 40 per cent flax.

We have also started and recommended that all support be given to the preparation of an exhibition of all important textile fabrics and other items, such as webbing, cords, threads, knit goods, etc. We consider this a very important, if not the most important unfinished task. With this exhibition to inspect, it will be much easier to locate new ideas and their producers, and spot quickly items of interest. We have reasons to believe that it will be quite astonishing to see the various applications of coating, lamination and different finishes applied to one and the same fabric and the various end uses of this impregnated cloth.

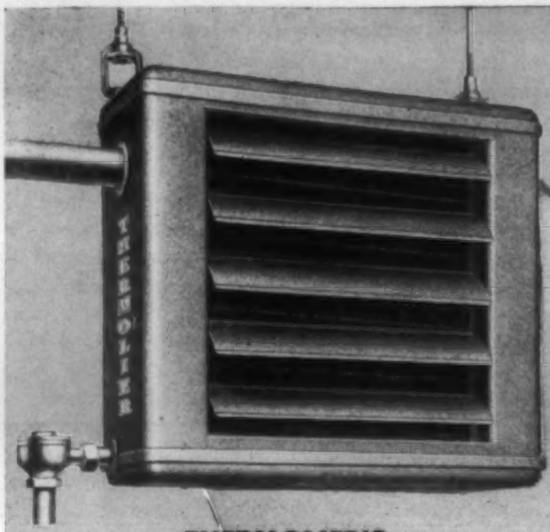
It was not always easy to get the desired information, not because the Germans did not want to give it, but because it was hard to find. As you well know from reports and pictures in newspapers and magazines, Germany's big cities and industrial centers, with few exceptions, have suffered heavily in the war. We would start out for a target and after we rode in a truck a few hundred miles, we found, particularly in the beginning, that there was nothing left of the plant we wanted to visit and that the personnel was scattered all over the country and the mill records hidden in all kinds of places.

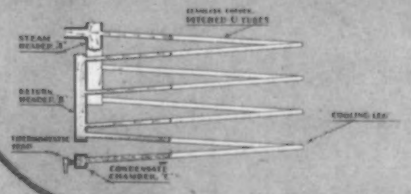
We have dug documents and records out of salt mines, hay lofts and from under wood piles in distances as far as 150 miles away from the plants to which they belonged. Also, very often these records were taken from one hiding place to another so that sometimes even the German personnel, which we took along with us, were confused as to where the desired records were and we finally landed back in the plant with the wrong boxes.

Already, as far back as the middle 30's, the government of Germany set up control agencies, called "Reichsstellier" for every branch of the various industries. For the textile branch it was the "Reichsstelle Textilewirthschaft." The personnel was selected from the textile industry and was semi-official in character. At first, these Reichstellens were used to govern all wage and civil rights disputes between labor and employees, but as the war developed, these agencies, to which a technical section was added, controlled the industry in regard to raw material, production, type of fabrics to be made and also research work. At the beginning of the war, there were well over 10,000 various textile items produced, which included articles of cotton, rayon, wool, flax, hemp, woven and knitted, webbings, cords, felt threads; in fact, anything that had to do with fibers. It became necessary to concentrate all efforts and items to as few as possible and the way they went about it was as follows:

The Reichsstelle Textilewirtschaft asked all manufacturers to submit finished samples and constructions of all the textile items they produced when they were assembled, all slight variations were eliminated so that the total textile items could be reduced to 1,178. These 1,178 items were then normed and type catalogs established and from then on, all fabrication had to conform with these norms. In general, the procedure of obtaining textile material was that the war ministerium would tell the Reichsstelle how much and what it needed. The Reichsstelle would find out what and how much raw material was available, then hold a meeting with the technical section and the industry section concerned, where the quantities and deliveries were determined for a period of three months. A rigid statistic was kept on all raw material and goods produced.

The reason for the extraordinary growth of rayon staple in Germany is that the German Government encouraged the building of plants. There was a time in the early 30's where the production of staple rayon was considerably bigger than the consumption so the government in Germany issued an order that all cotton and wool fabrics produced must contain not less than 15 per cent of staple rayon,





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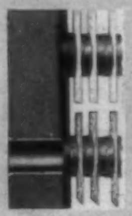

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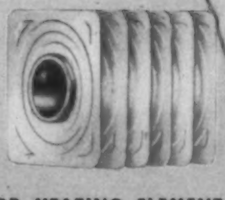

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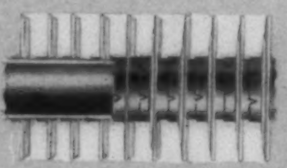

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which percentage was increased further later on. On the whole, the idea of blending rayon staple and cotton was not considered successful, at least not in all fabrics, therefore, a large program of research was instigated to put all efforts on 100 per cent rayon staple fabrics wherever possible and feasible.

Rayon Pilot Plant

By M. EARL HEARD
West Point Manufacturing Co.

WHEN the German War Ministry realized that it would be impossible to obtain sufficient cotton to operate the textile industry, plans were made to expand the rayon industry. These plans were carried out, and rayon producing plants were constructed in strategic locations throughout Germany. At the beginning of the war probably 60 to 80 per cent of the pulp used in manufacturing rayon was obtained from Sweden and Norway. However, towards the close of the war the majority of the pulp was being obtained from German forests.

The cotton mills in Germany started out with blends of ten, 20 and 30 per cent of rayon and this figure was gradually increased as cotton became harder to get. Many problems arose in the mills, naturally, in trying to run such large quantities of rayon staple, and the first step towards a solution of these problems was to put the matter in the hands of the textile schools in Germany. These schools were well equipped and staffed with able men. However, the results obtained were not always satisfactory due to the difficulty in translating experimental projects to plant work. Finally a decision was made to build an experimental spinning plant and to staff it with the best men obtainable. The Reichsstelle governing the textile industry undertook to develop this project, and Walter Linder, who was one of the directing heads of this organization, located a very able man, Bernhard Bisinger, to direct the new plant.

A careful study was made to locate this plant properly, and a spot about three miles south of Esslinger, Germany, near the little village of Denkendorf, was finally chosen. Every detail of the building construction was carefully studied in order that the entire plant might truly be an instructional spinning mill. The latest type of insulation for floors and walls was installed. The most modern saw-toothed roof construction, the best possible interior lighting, various types of material were used for walls, and a composition floor which seemed to offer the best possibilities for textile work. The entire plant is completely air conditioned, and every type of material handling device was installed so that the mills could observe and study these factors as well as the equipment and processing methods. Many types of textile machinery were installed in this plant which has a total of 5,000 cotton spindles and 2,500 worsted spindles.

The rayon producers, the cotton spinners, and the German Government collaborated in this project, and a capital of three million marks was made available through the organization. We were informed that the results had been so well received that plans were under way to treble the size of the building giving an equivalent amount of space to warping and weaving and a like amount to dyeing and finishing, also laundry practice. This expansion program was stopped by the war. The textile machinery manufacturers in Germany and in Switzerland followed very closely the developments at this plant, and we were informed that the plant had consulting contracts with all the major textile machinery firms in the above named countries. When new fibers were developed by the rayon producers, sizeable quantities were sent to the Lehr Spinneri at Denkendorf for experimental trials as to spinnability. This plant constantly ran tests for the proper finish on rayon staple fiber and all other properties that would affect the manufacture of a good yarn. A very fine testing laboratory was developed at the plant and considerable machinery development was carried on as well as processing studies. Reports were published to members only, and we obtained a complete file consisting of three volumes of these reports which have been translated and will be contained in our final report.

In addition to the published reports, we investigated this plant thoroughly and obtained copies of all unpublished information that seemed to have some value to us. The following information will give a brief summary of their method of processing rayon: one bale breaker feeding into conditioning bins where the stock remains for 24 hours or longer to condition and bloom; the stock is then put on a long feed apron with two bale breakers in tandem, hooked onto a picker with one Kirschner type beater; the first two or three grids were removed under the Kirschner beater in order to throw out any lumps or heavy particles that would cause neppiness later on; a small plate inside the picker between the Kirschner beater and the condenser cages reduced the width of the lap slightly and gave much better edges to the finished lap. The weight was reduced on the calender rolls to about 180 kilograms.

Four types of cards were set up in the plant and about the only change here was that every second or third flat had been removed and a smooth plate inserted instead of the flat. New licker-in teeth had been developed and a new long nosed feedplate. Three types of wire were used for card clothing, namely: our regular card clothing wire, metallic clothing, and metallic clothing embedded in a fabric or rubber base. This latter type seemed to be the most desirable, as it gave a certain degree of flexibility to metallic clothing that was not obtained when straight metallic wire is wound on the cylinder. They had adopted a speed of about ten pounds per hour on the cards and the webs were excellent. They seemed practically free from any trace of neppiness.

Two processes of drawing are used and eight ends up are run on all drawing. Attention is paid to uniformity of trumpet sizes on both cards and drawing, and I could see no major change from our conventional drawing processes. Two processes of roving are used, and the bobbins on the front row of flies are marked and kept separate from those on the back row. A small plastic cap with a slot on top is inserted on the top of the front row of flies in order to make the twist run up to the bite of the roll better than it would ordinarily do. They like the Reiter fly frame best but with the straight line cones and the bolster gears enclosed in a cast iron box the length of the frame running in a film of oil.

All the major types of spinning are installed in this plant. However, the "Penderwalsen" seemed to be the best type by far. We were told that if the metal situation had permitted, all the spindles in Germany would have been changed over to this type of spinning. It consists of a self-weighted back roll about 2¼ inches in diameter and weigh-

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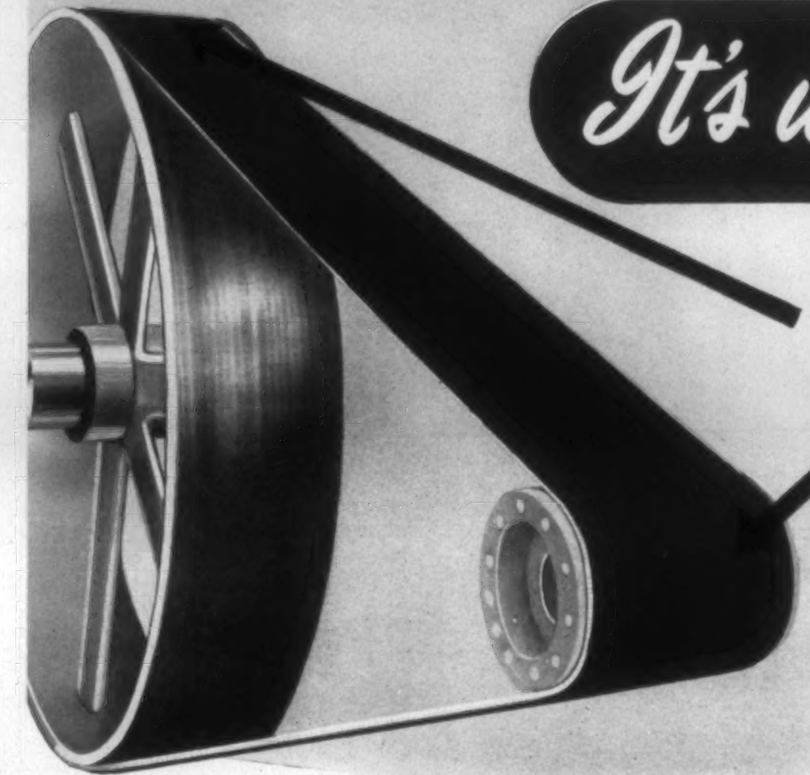

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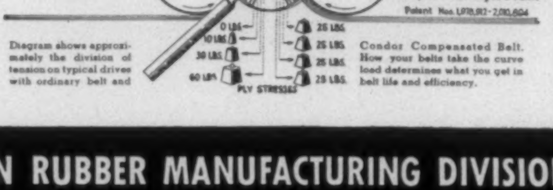

Diagram shows approximately the division of tension on typical drives with ordinary belt and Condor Compensated Belt. How your belts take the curve load determines what you get in belt life and efficiency.

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ing about 2,400 grams, with the two front rolls hooked together firmly with a connecting bar that has a circular piece of metal fitted to the end nearest the back roll. This circular piece fits into a round slot in a new type of roll stand, and no matter what sidewise pull is exerted on the front roll, the two front rolls always swing back in a true parallel position. The two front rolls are ball bearing and plans call for the self-weighted back roll to be ball bearing. It is claimed that this type of system eliminates a great deal of the cleaning and oiling on the spinning frame, and since the rolls may be lifted out easily and quickly, the changeover of a frame to a roll setting is very simple and accurate.

We also saw an air suction device for the spinning frame which consisted of a galvanized iron or tin trunk about three inches high under the creel board with a tube coming up and fitting in place where the under clearer roll would be normally held. This tube is tapered towards the far end away from the connection of the trunk, and a very small hole is bored in the trunk so that when an end breaks down, the roving feeding through to the front roll is sucked into the trough on through the trunk and into a box at the end of the frame. The fan required about one horsepower, and we were told that a 30 to 40 per cent in ends down was the normal result from this device. The writer later visited a 25,000-spindle mill fully equipped with this device and the owner seemed to be well pleased with the results obtained. We saw an experimental spinning frame with a spindle 15½ inches high and trials were being started on this.

The worsted equipment consisted of four worsted cards and a line-up of four intersecting gill boxes and ring spinning frames for long staple, synthetic fibers. This plant had a well equipped machine shop for machine development work, and as a result of their tension studies in the drafting field on the spinning frame, a new instrument has been developed to determine quickly the best breaker draft on drawing, roving, or spinning frames. This machine was moved from Denkendorf and hidden just before the surrender, and we brought it back to Denkendorf and some missing parts were being made so the machine could be erected and studied at that location by future teams.

Another interesting machinery development was an automatic tow cutting machine. This machine seemed to be the best development in this field *(Continued on Page 68)*

—The Saga of China's Wartime Textile Industry—

CHINA as a consequence of the sudden ending of the war, which balked plans of the retreating Japanese to destroy the mills, is recovering some 3,000,000 cotton spinning spindles which are in fair condition, Ralph E. Loper of Ralph E. Loper & Co., industrial engineers, stated in an informal talk to the Association of Cotton Textile Merchants of New York Oct. 10. Before the war China in 1937 had 5,560,000 spindles, he stated.

Mr. Loper recently returned from China where he spent several months on a special textile mission for the government. He described in graphic terms the manner in which Free China, reduced to but 230,000 spindles during the war period, managed to supply its armies with clothing, with a slight margin also made available to meet needs of its civilian population.

The 230,000 spindles Free China had were located in and near Chungking and represented but one per cent of the textile machinery existing in the United States. It consisted of 30,000 spindles originally in the free area and some 200,000 spindles which were moved in advance of the invading Japanese armies. He described in detail the problem of moving this equipment, citing one mill whose machinery had to be dismantled and packed in 117,000 boxes and cases, so that it could be moved, partly by steamer, partly on junks, and ultimately on the backs of coolies to the Chungking site. Finally plants were set up in small, independent units to minimize losses from constant bombings.

The Chinese mills in the main spun 10s, 16s and 20s yarns and while some weaving was done in mills, much was woven on hand looms in homes or small factories. Fifteen to 17-inch goods were being produced at about 75 picks per minute. Spinning wheels were resurrected to boost the supply, with some 77 per cent of the entire production going to the Chinese military, while the civilian supply ran about one-third square yard per capita, or about the equivalent of a single Army handkerchief.

To meet war demands, he stated, a Cotton Yarn and Cloth Administration was established with a monopoly on cotton and prices. The agency bought most of the Free China cotton crop, delivered it to spinning mills giving them a waste allowance and a 20 per cent profit over average cost, took back the yarn and let it out to weavers paying them by the piece, and then distributed the goods. By early 1945 China was in a severe black market in textiles and Mr. Loper's mission, working with the Chinese, selected 200 Chungking cloth merchants and consigned cloth to them, fixing prices weekly and keeping the prices five to ten per cent under the black market. Prices had to be adjusted to check runs on the stores each time the black market went further. The situation became acute just before the end of the war, but with that event prices broke about 50 per cent. Values later declined further.

In working out the cotton supply Mr. Loper commented on the development of tree cotton in China. Such trees bear in the third year, continuing for about 20 years, with semi-annual crops picked in June and December. Two Chinese corporations are developing thousands of acres of this cotton which has 28 to 30 mm. staple with a soft fiber similar to Egyptian, and which has been called "perennial Egyptian." Other cotton is short but the Chinese are improving it and are producing in Shensi and Szechuan cottons which are the equivalent of print cloth cotton in America.

With the insufficiency of fiber, Mr. Loper stated, he took part in an Army mission with the objective of taking advantage of depreciation of the currency of the puppet regime in occupied China, and obtaining cotton across the Japanese lines, thus reversing a previous Japanese practice. This required a dangerous trip through western Hunan in which some $500,000,000 Chinese in high denomination notes arranged by the Chinese Government were brought to the front. Routes were set up for bringing the cotton through and a working system established, paying the coolies who carried it in as soon as it was a few miles into free territory. So successful was this that it was followed up by two more similar trips, each one involving two tons each of currency.

Currently Chinese interest in second hand American textile machinery is somewhat less than it was, owing to the unexpected recovery of 3,000,000 spindles with the war's end, Mr. Loper stated. The other 2,000,000 spindles, he said, either had been destroyed or had been broken up for scrap and shipped to Japan.

In response to questions, Mr. Loper expressed hope that by the end of the year commercial relations with shipments of cloth and machinery to Chinese ports might be resumed. He cited Chinese desires for financial assistance in rebuilding their industry, possibly on a ten-year basis, but with the Chinese anxious to keep control. Asked about possible outlets in China for surplus war textiles here, he said they need all types of goods except heavy duck. He stated that before the war China was able with the spindleage it then had to meet its domestic textile needs. He stated that the mission was impressed by the good quality of Chinese textile labor. He reported that in the period of shortage of fiber during the war about 3,000 tons of cotton were flown in.

Spun Rayon Dyeing and Tub-Fast Blends

By T. S. McDUFFEY – Part One (Vat Colors)

This article discusses dyeing methods that are adaptations of older ones used in the dyeing of vat colors on cotton piece goods. These methods are in the development state for use on rayons, and there will be many more changes worked out before all the kinks are smoothed out for dyeing spun rayon and spun rayon blends on 5,000 yards and greater yardage per shade on the continuous methods. This article and the subsequent one will treat of continuous vat dyeing as well as the pigment padding and jig vat dyeing methods as now being used in dyeing these new fabrics.

THE silk piece goods dyeing and finishing industry which was centered in New Jersey and Pennsylvania began to see 'hard' times around 1930, when viscose-acetate rayon crepes and other rayon piece goods began to appear on the market in a large volume, and American women could buy two or three rayon dresses for the price of one silk. This caused the rapid assumption by old silk dyers and finishers of the job of dyeing and finishing the rayon piece goods, using the same dyeing and finishing methods and equipment as used on silk.

This was a job that many standard type piece goods finishing plant officials, as well as dyeing and finishing equipment makers, believed should have been adopted in the standard type of piece goods finishing plants from the start and that the progress of this industry has been retarded greatly due to this cause. Both sides of the case have their merits, but now that the dyeing and finishing of spun rayon and blended goods have called for tub-fast colors in large quantities instead of direct colors, and on a scale that will require volume production, the standard cotton dyeing and finishing plants are coming into the picture very forcibly. It will be interesting to watch the gradual adoption as well as blending of standard cotton piece goods dyeing and finishing methods with the olders ones used until now on finishing spun rayons and blends.

Important Differences

There are major differences between cotton and rayons, both in the dyeing and finishing and the preparation of the material for processing. Cotton piece goods may be kiered and bleached with chlorine or peroxide in rope form in preparing it for dyeing and finishing, but with filament and spun rayon piece goods it is absolutely necessary to prepare in the open width. The introduction of the open width continuous peroxide bleaching processes has definitely brought the preparation of 100 per cent spun rayon and spun rayon cotton blends close to the same possible preparation procedure as used on cotton piece goods, if a plant running these rayon goods is equipped with an open width continuous peroxide bleaching unit. If spun rayon (viscose) piece goods blends contain acetate rayon, wool or casein fiber, then the usual standard continuous peroxide bleaching as run on cotton piece goods must be greatly modified or not be used due to the high alkalinity plus high temperatures.

The physical characteristics of rayon and cotton are quite different on spun and filament viscose rayon as compared to cotton. Viscose rayon fibers swell on processing with hot alkaline solution to a much greater extent than cotton. The rayon fibers become much weaker when wet than does cotton, and for this reason they stretch when wet more easily than cotton piece goods. Wet rayon goods when stretched resemble the stretching of a piece of soft metal which, due to it's ductility, will stretch but not return to its original length because of lack of elasticity. Because of these different physical characteristics of cotton and viscose rayon there must be modification of the continuous peroxide open width bleaching process to prepare the rayons without stretching them noticeably. Such a process may be evolved along the lines of an open-width boil-off layout.

The Absorbency Factor

Well prepared cotton piece goods usually possess greater absorbency than similarly constructed spun rayon or filament rayon piece goods, and for this reason greater care must be exercised in selecting vat colors and applying either in the pigment or reduction form. Rayons also possess a higher take-up or affinity for the vat colors than cotton unless the cotton is mercerized prior to dyeing, so an additional amount of retarding and leveling agents must be used than on the usual cotton constructions.

In the oxidation and finishing of rayons greater care must be shown in obtaining a complete penetrative oxidation of the dyed (leuco-reduced) vat color as the rayon fibers are in a swollen state and require a greater amount of the oxidizing agents plus greater pressure on the squeeze rolls so as to insure a completely penetrated oxidation of the vat dyed rayon goods. It is not advisable to use higher oxidizing temperature unless poor penetrative oxidation of colors is noticeable on goods.

The preparation of spun rayons and blends is important in the dyeing of these goods with fast-to-light direct colors, but it is doubly important when dyeing vat colors. A satisfactory operational procedure for handling spun rayons and blends consists of, first, singeing of gray goods; second, desizing (padding on enzyme); third, boil-off open width (continuous machine) and boil-off on jigs; fourth, dyeing of vat colors by continuous method and pigment pad-jig (reduction); and fifth, finishing.

The singed gray goods are padded through desizing enzyme mix at 120 to 145° F., *(Continued on Page 72)*

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Synthetic Resins in the Book Cloth Industry

DEVELOPMENT of synthetic resins now enable the bookbinder to provide bindings which simulate the properties of leather yet cost as little as fabric bindings. Pyroxylin, one of the first resins to be used in book cloth, was once applied over the starch sized linen to give a soil-proof, long wearing binding. While this coating represented a major advance in the bookbinder's art, it tended to crack upon continued flexing, the plasticizers spewed and caused dirt and grime to mar the surface.

The next logical step was to develop a pyroxylin coating with improved aging qualities and flexibility. For this purpose, synthetic resin plasticizers were investigated and a coating was made of pyroxylin and a resin known as "Paraplex," developed by the Resinous Products & Chemicals Co., of Philadelphia, which remained flexible upon aging or exposure to low temperatures and wore well. This coating showed freedom from cracking at the binders, resistance to water spotting, and no spewing of the plasticizer.

One maker of book cloth, the L. E. Carpenter Co., of Wharton, N. J., realied that while the surface coating might do much to improve book cloth, it was necessary to improve the starch sized cloth base before a product of real satisfaction could be obtained. The production of book cloth entails the desizing and dyeing of the cloth, starch sizing to obtain tension, tentering to minimize dimensional change, pyroxylin coating, embossing and calendering. Careful control of all processes must be maintained to secure finishes which are tough, water and mildew resistant, attractive in appearance and capable of being printed upon clearly and legibly.

In this pony mixer the nitrocellulose paste for pyroxylin coatings is prepared. The resins added to the mixture at this point make the cloth durable, waterproof and mildew resistant. After this mixing, the paste is thoroughly milled on a high-speed roller mill, and, finally, solvent is added to secure the desired viscosity for application.

The desizing operation preparatory to dyeing is best accomplished by treatment with certain enzymes which remove the sizing from the fabric with a minimum of destruction to the fabric itself. One method which gives excellent results on the light weight cotton fabrics customarily used on books consists of passing the cloth through a solution composed of enzymes and wetting agents in water. The cloth is then run through squeeze rolls to distribute the solution thoroughly. The cloth, containing 100 per cent moisture, is allowed to stand from four to twelve hours or overnight after which it is washed. The enzymes convert the starch in the fabric to a more soluble form, insuring complete removal in the washing operation.

The mixing compound, consisting of synthetic resins, coloring pigments and solvent, is knifed onto the cloth. For book cloth and artificial leathers, the knife coating method is used since it permits depositing a uniform film of the desired thickness on the outer surface of the material. By adding a resin of the urea formaldehyde type to this paste, a high degree of water resistance is obtained. A special non-toxic, odorless resinous mildew proofing agent is also added. The paste is put on the back of the fabric to prevent seepage during the subsequent pyroxylin coating process, where the lacquer is applied to the front of the cloth.

In the dyeing operation it is important to control not only the concentration of chemicals in the water, but the water itself to prevent variations in the shade of cloth obtained during dyeing, since the presence of undesirable minerals, salts or other impurities in the dye water

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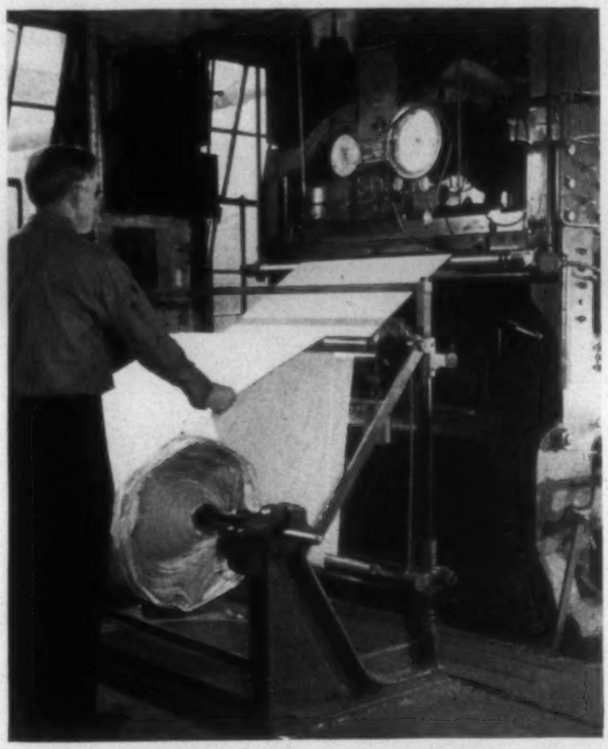
THE COUNTRY OVER, IT RAINS ONE DAY OUT OF THREE may have a decided effect on the appearance of the dyed cloth. Thus, it is necessary to condition the water before the dyeing operation. This is effected through the use of a water purification system, equipped with synthetic ion exchange resins. By use of these ion exchange resins, it is possible to completely remove all soluble salts or "deionize" the water, rendering it comparable to distilled water in softness and purity. In operation, raw water is passed through beds of ion exchange resins. The first, or anion exchanger, converts the salts present in the water to the corresponding acids and the cation exchanger in the second bed completely removes these acids, yielding water free of all soluble salts.

The starch sizing of cloth normally consists of knifing the starch paste on the fabric and passing the fabric over a series of heated rolls to remove the water. The starch provides a filler for the cloth and an excellent surface for the subsequent application of synthetic resin coatings. Coating book cloth with synthetic resins involves passing the cloth through a trough containing the resin solution or knife coating the fabric. The solvent is then removed as the cloth passes through a heated tunnel and the process is completed by passing the fabric through calender rolls. Subsequently, a pattern may be embossed on the cloth in an embossing press.

A unique process recently developed by the L. E. Carpenter Co. and which involves an unusual resin combination characterized by rapid polymerization at the normal embossing temperature, now permits a leather-like pattern to be embossed on the cloth at the same time the resin is cured to its final, insoluble rubber-like state. The method promises to make available a host of new, distinctive finishes.

Pyroxylin coated fabrics, prior to the war, were usually formulated with nitrocellulose and castor oil compounds. During the war, a number of synthetic resins became commercially available so that now there are a wide number of raw materials to select from when producing simulated leather or unusual types of book cloth. Among the combinations which can be used are thermosetting polyvinyl butyral, polyvinyl chloride, improved types of nitrocellulose and ethylcellulose, cellulose aceto butyrate, cellulose aceto propionate, and a variety of synthetic rubber. In nearly all of these materials mentioned above, new plasticizers have been developed of a resinous nature which has made the application of these products to cloth feasible.

In this drying tunnel the volatile solvents used in reducing the coating compound to a spreadable viscosity are removed by circulating hot air and the final cure of the resinous coating is completed. By condensing the vaporized solvent, it is recovered for further use.



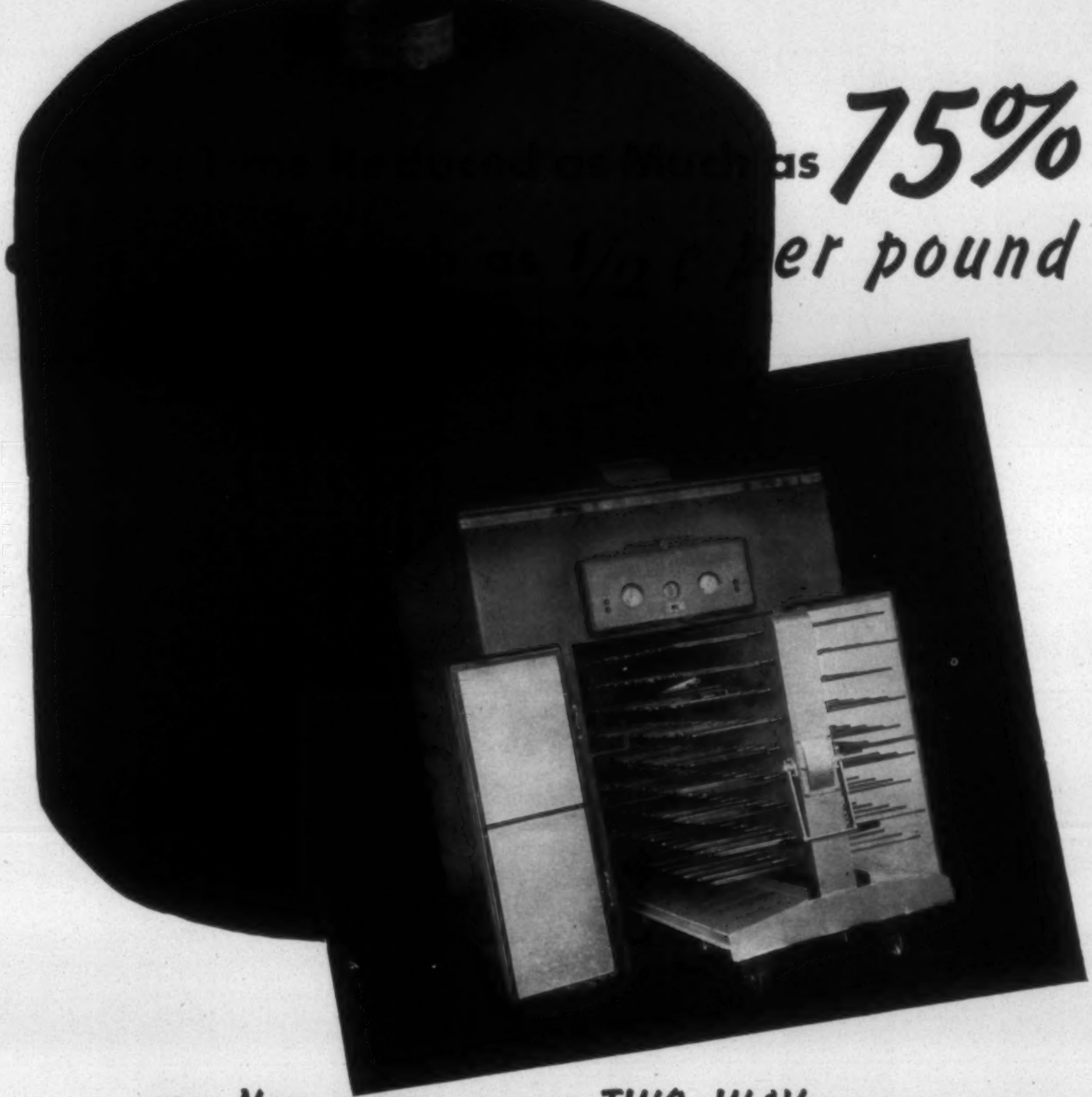
This embossing machine is unique in that, in a continuous operation, the resin coating is cured by heat to a final, tough, rubbery state and the desired grain embossed on the coated fabric.

September Rayon Shipments Down Four Per Cent

Total rayon shipments of 60,600,000 pounds in September were four per cent below the August figure of 63,200,000 pounds, states *Rayon Organon,* published by the Textile Economics Bureau, Inc. Filament rayon at 48,500,000 pounds was four per cent lower than August, while September staple fiber shipments of 12,100,000 pounds were off by five per cent.

During the first nine months of 1945, 566,900,000 pounds of rayon were shipped, an increase of ten per cent over the same 1944 period. Of this total, 446,300,000 pounds were yarn and 120,600,000 pounds staple fiber, representing a yarn increase of 13 per cent and a staple decrease of two per cent from 1944. In the 1945 period, 320,600,000 pounds of viscose+cupra and 125,700,000 pounds of acetate yarn were shipped, while viscose staple deliveries totaled 91,800,000 pounds and acetate staple 28,800,000 pounds.

Rayon stocks show only a slight increase from last month, amounting to 10,700,000 pounds in September against 10,000,000 pounds in August. The *Organon* points out that recent rayon supplies have been limited at the consumer level partly because of the greatly reduced inventories held at all stages of manufacture and distribution. Until these inventories of raw materials, goods in process, and finished goods are built up to a practical working level, scarcities will continue to plague the consumer, to say nothing of manufacturers and distributors.



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The Trion Company—Its First 100 Years

THE first 100 years of the Trion Co. of Trion, Ga., pioneer textile firm in one of the first Southern textile communities, was marked when, beginning Sept. 29, Centennial Week was an occasion for celebration by the entire mill settlement. Beginning with a barbecue, the week was climaxed with a pageant depicting the history of Trion, in which descendants of the mill town's settlers enacted roles played in real life by their ancestors when the town was aborning a century ago.

The pageant embraced episodes in the evolution of Trion from the days when Cherokee Indians inhabited the site until the present. It was directed by Eugene Bergmann of Atlanta, Ga., and a symphony orchestra from Chattanooga, Tenn., furnished a musical background. Reigning over the final festivities of Centennial Week was Miss Marjorie Wardlaw, also "queen" of the Centennial Ball.

Originally a Thread Plant

The Trion Co., the textile firm that is the reason for the town's existence, had its beginning in 1845 when Judge Spencer Marsh and Andrew P. Allgood of Lafayette, Ga., and Col. W. K. Briers chose a tract of ground on the Chatooga River as the site for a mill which at first made only thread. The first mill, a small two-story log structure, was listed in White's 1850 Census as having "864 spindles, ten looms, averaging 45 yards per loom; 45 operatives." Colonel Briers subsequently sold his interest in the mill. Sherman's Yankees overlooked the small Trion mill in their march through Georgia in the Civil War, although it was supplying the Confederate Army with a coarse woolen cloth.

Pictured above are N. Barnard Murphy, president of the Trion Co., and Miss Marjorie Wardlaw, queen of Trion's Centennial Celebration, just prior to her crowning. Miss Wardlaw was elected by popular vote of the Trion employees.

The mill continued to grow, albeit slowly, and was destroyed by fire in 1875. While the fire was still smoldering, Mr. Allgood began marking trees in the forest to be used in the construction of a new mill. Upon the death of Judge Marsh, Mr. Allgood became president of the company. The capital was increased to $225,000 and 258 looms were added. Mr. Allgood continued to preside over the mill's interests until his death in 1882, when his only son, Deforest Allgood, became president. By 1898, there were 620 operatives with a monthly payroll of $8,000. There were 758 looms and 26,640 spindles in operation. Cloth manufactured during that time was exported to Brazil and Hawaii, as well as to all parts of the United States.

Benjamin D. Riegel of New York City assumed the presidency of the company in 1912. It was under his guidance that the company experienced its greatest expansion. One of the largest work glove fabricating plants in the country was added in 1930 and a dyeing and finishing plant was constructed in 1939. During World War II the mill made enough material to furnish a fatigue suit for every member of the 10,000,000-man United States Army, besides other products. Another unit of the little mill empire is Riegeldale Farm, where Guernsey cattle are bred.

Four Years of War Work

The small log mill of 100 years ago now has become a three-story brick structure, operating 90,888 spindles and manufacturing over 1,000,000 yards of cloth each week. During the past four years the mill has run almost entirely on war work. John L. Riegel of New York is present chairman of the board of directors of the Trion Co. G. H. H. Emory is treasurer, and N. B. Murphy is president.

A.A.T.C.C. 'Victory' Convention Scheduled

A "Victory" convention of the American Association of Textile Chemists and Colorists will be held Jan. 3-5, 1946, at Hotel Pennsylvania, New York City. Preliminary plans for the convention include a technical session on war problems and their peacetime applications and a joint meeting with the Intersociety Council for Textile Research, at which reports will be given by textile experts who have returned from Europe. Other features programmed are the presentation of papers in the annual intersectional contest; award of the Olney Medal for outstanding achievement in the field of textile chemistry; and a general research meeting open to all members of the A.A.T.C.C. The "Victory" convention will be held under the auspices of the New York Section.

Cotton-Textile Institute Postpones Meeting

The Cotton-Textile Institute announces that it has postponed its annual meeting, originally scheduled for Oct. 24-25, to Nov. 28-29. The sessions will be held at the Waldorf-Astoria Hotel, New York City.

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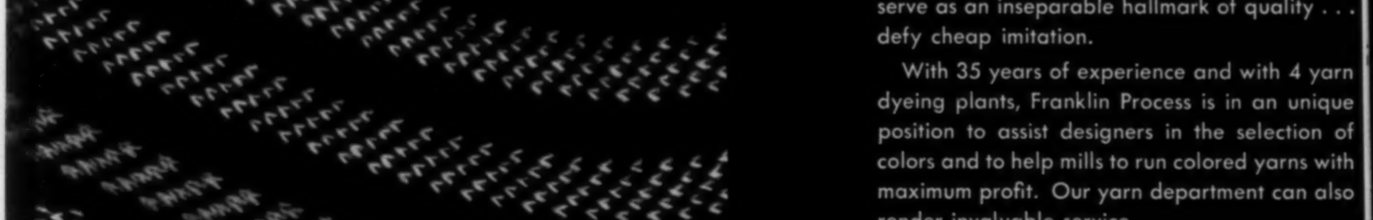

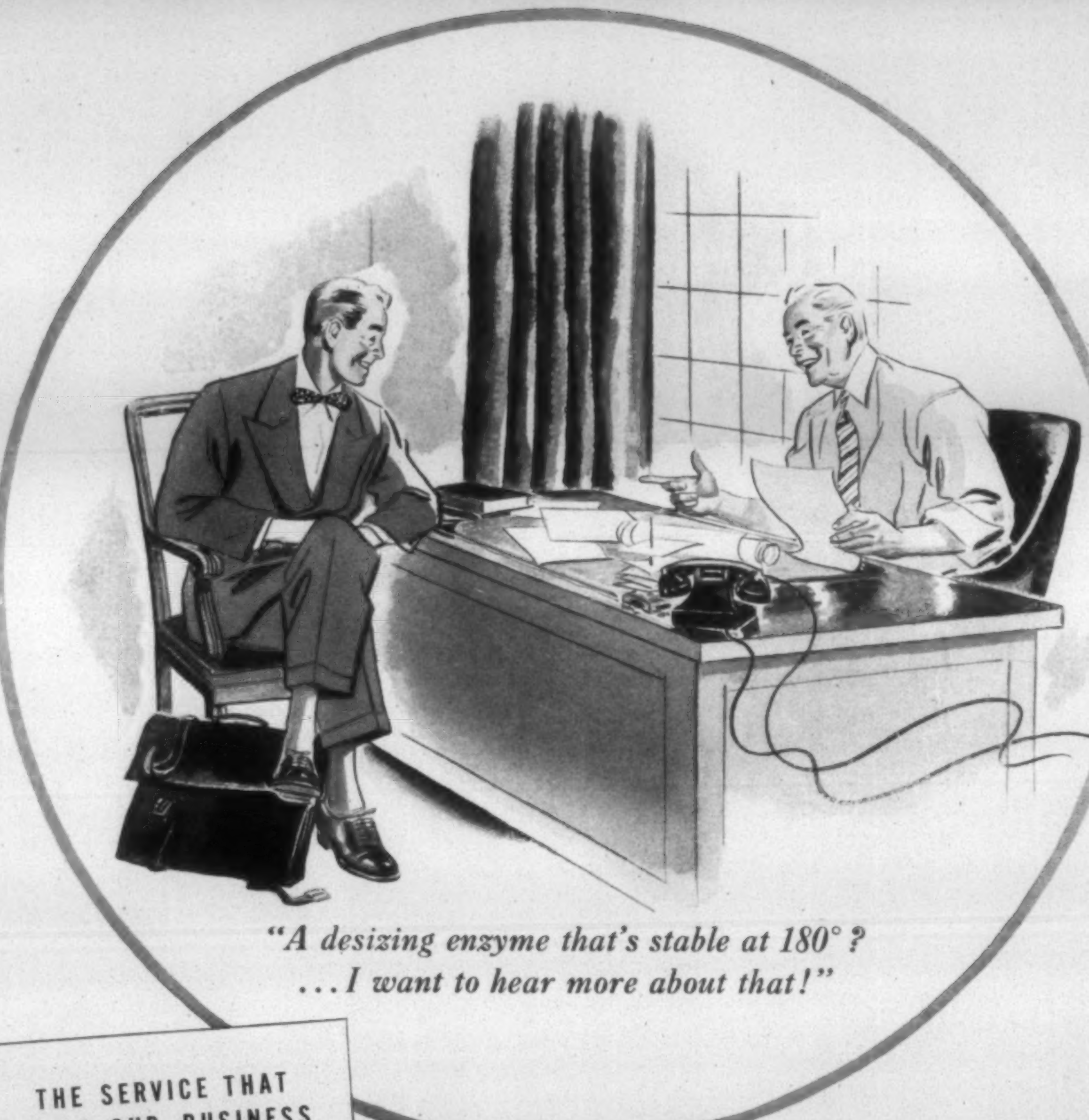

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DYEING AND FINISHING

Piedmont Section of A.A.T.C.C. Holds Meeting

MORE than 300 persons connected with the South's dyeing and finishing industry gathered at the Charlotte Hotel in Charlotte Oct. 13 for a "victory" meeting of the Piedmont Section of the American Association of Textile Chemists and Colorists. The meeting began in the afternoon with separate technical sessions devoted to piece goods dyeing and hosiery dyeing, and concluded with a banquet session in the evening.

New Officers

New officers of the group were elected by mail ballot, and were announced as follows at the banquet: Leland G. Atkins of Southern Dyestuff Corp., Charlotte, chairman (succeeds Sydney M. Cone of Proximity Mfg. Co., Greensboro, N. C.); Wyss L. Barker of Allied Chemical & Dye Corp., Charlotte, vice-chairman (succeeds Mr. Atkins); John B. Neely of Burlington Mills Corp., Burlington, N. C., re-elected secretary; Roy J. Beauregard of Fairforest Finishing Co., Spartanburg, S. C., treasurer (succeeds Mr. Barker); Arthur R. Thompson of Ciba Co., Charlotte, re-elected custodian.

Named to the sectional committee were Edwin A. Briggs of Southern Franklin Processing Co., Greenville, S. C.; Robert H. Smith of Melrose Hosiery Mills, High Point, N. C.; F. E. Sprock of Geigy Co., Charlotte; and W. A. Wardell of Rohm & Hass Co., Charlotte. Present councilors of the section are Mr. Cone (serving a three-year term), Dr. Raphael E. Rupp of Pacific Mills at Lyman, S. C. (two-year term), and Samuel L. Hayes of Ciba Co. at Charlotte (one-year term).

Piece Goods Discussion

The technical session on dyeing problems and new dyeing equipment for handling piece goods, attended by approximately 100 technicians, was led by Dr. Rupp, assisted by James Myers, superintendent of North Carolina Finishing Co., Salisbury, N. C., and R. J. Tyrrell of Riverside and Dan River Cotton Mills, Danville, Va. They were assisted by H. M. Chase, director of research, Riverside and Dan River Cotton Mills, and S. H. Williams of General Dyestuff Corp.

Dr. Rupp, discussing proper light for shade matching, mentioned the divergent lighting arrangements now used by finishing plants. He pointed out the fact that in a majority of finishing plants there is used the carbon-arc or MacBeth lamp in a semi-dark or darkened room, as shade-matching must have a uniform light simulating daylight over a 24-hour period. Textile plant officials, he said, usually have flourescent lamps in their offices where finished fabrics are checked for shade. The Quartermaster Corps use either MacBeth lamps or, preferably, northeast daylight for approval of shades.

Elaborating, he said that the MacBeth lamp approximates northeast daylight closely while flourescent lamps, due to the "wavyness" of light plus other conditions of light waves, gives different color effects from those observed on shades under daylight or MacBeth lamps. This difference in shade is very pronounced on tans, olive, browns, violets, maroons and reddish blues, he added. He said, too, that shade differences are more pronounced where shades are matched with new color combinations other than used on original dyed shades, and that dyers thought it best to match shades under less expensive flourescent lamps, notwithstanding the difference from daylight, as practically all textile offices in piece goods mills, as well as buyers' offices, are equipped with flourescent fixtures while only one in a hundred would have a good northeast daylight window or a MacBeth lamp.

It was suggested by one of the technicians present that the makers of flourescent lamps be asked to standardize the lamps as to "practical life" for usefulness in shade-matching, since it has been shown that flourescent fixtures may be used a given number of hours before they start giving "wavy" light. Therefore, if the makers would help rectify this defect and give standard type fixtures, then dyers may find it practical to use flourescent lamps for shade-matching as well as on approval of shades.

Different aspects of vat dyeing and drying were discussed by Mr. Myers, treating of present and older type of vat dyeing methods with special adaptations as compared to new types of metods and machines. Mr. Williams, in answer to questions as to suitable vat colors and temperatures for reduction, replied that Vat Blue BCS type required 180° F. while others would be reduced at 200° F. or 212° F. satisfactorily without affecting color fastness. The suitable speeds for these new machines, it was observed, depended upon construction and preparation of goods as well as the efficiency of the drying units. These speeds, it was reported, range from 75 to 150 yards per minute.

A discussion as to whether the application and dyeing equipment had not been over-emphasied at the expense of proper preparation methods and improved drying equipment followed. As one technician stated, no production in a plant can be stepped up through improved application and dyeing units until the drying units are increased to meet this production. Methods to increase production on present-day equipment, as well as giving improved fastness to light that would compare favorably in processing costs to the new dyeing units, were suggested.

Widely used vat dyeing methods mentioned in this connection included (a) pigment padded, entered on jig wet, reduced and dyed; (b) pigment padded, partially extracted and dried, reduced and dyed: (c) pigment padded, dried, entered jig, reduced and dyed. Plant runs made, according to observers, showed that full shade required six ends on jig in the (a) method, while the (c) required only one end on jig. The pad liquor, length and ratio of jig reduction baths proved identical. Similiar amounts of dye liquor were taken from (a) and (c) jig baths after dyeings were completed, laboratory dyeings showing that beaker dyed shade as stronger on (a) as compared to (c). Jig dyed shade from (c) showed better light fastness than (a).

This discussion led many present to delieve that the pre-dried and jigged dyed cloth in (c) had better fastness due to the drying making the pigmented vat color penetrate into the fabric, thus improving color yield in less dyeing time as well as giving better penetration and fastness. One official amphasized a close study of ratio of dye liquor in jig plus time study required on drying prior to jigging, then compare time and color costs against higher speed operations which may not give quite as fast dyed goods.

In summary, one would say that the following factors must be carefully studied and analyzed before decisions are made on new equipment purchases as well as rearrangement of preparation, application, dyeing and drying procedures: the part drying has in improving and evaluation of vat dyeing of piece goods; and, to improve the color yield, fastness and production time on vat piece goods dyeing a plant must carefully study preparation and drying in the same proportion as application, dyeing procedures and equipment develop in the future.

In a discussion of pigment color on piece goods, these points were stressed in the dyeing of pastel shades on piece goods with pigment colors by carrier resins: strict classification of gray fabrics; improved preparation to show less neps and chafe marks; pigment dyed pastels show smoother, less neps, and leveler shades on piece goods than vat dyed when finished goods are inspected; washed pigment-dyed pastels show crock, chafe and nep marking while washed vat dyed pastels show practically no change from original finished fabric; pigment color carriers, solvents and application methods are being greatly improved and will gradually increase in use due to release of wartime products now available.

The question was asked as to whether vat colors would replace sulfur colors and it was generally conceded that the price of vat colors must be reduced greatly before sulfur colors would be replaced entirely by vats. At the present writing vats will be used on light to medium shades while sulfur colors will continue to be used on heavy browns and like shades where the poor light fastness is not as detrimental as on light to medium depth sulfur shades.

Banquet Session

Dr. Frederick T. Peirce, now director of research for the school of textiles at North Carolina State College and until recently connected with the Shirley Institute of England, was the principal banquet speaker, dealing with "Textile Science as a Branch of Human Ecology." An abstract of his address follows:

Since the industrial revolution, technical men have discussed and textile schools taught the processes of production, the mechanical and chemical engineering of the industry. The result is a great achievement, to be seen nowhere better than in the production engineering of the Piedmont South. But the engineer will fail if he starts with a poor raw material. A new branch of textile service has emerged, in industrial laboratories rather than in textile schools —the study of fibers, their structure, properties and behavior, which might be called "trichology."

Still the industry would fail in its purpose, and ultimately in commerce, if its products did not satisfy the customer or end-use. This has two aspects, the efficient making up of equipment and the function of the equipment or garment. The former may be called "cloth engineering," and is a fertile field for modern textile science.

The function of a garment is to modify the environment of man, to protect him from the climatic elements. The study of the mutual relations of man and his environment is the science of human ecology, of which this aspect of textile science is an important part. It leaped into prominence in the work of the Quartermaster Corps and of the Shirley Institute during the war, stimulated by the stern demands of military necessity.

Man evolved in tropical jungle and used clothing only for adornment. Migration and climatic changes brought some tribes into cold conditions and they learned to cover themselves, seek shelter, use fire, make tools and so on, till the habit of invention carried progress far beyond the original necessity, to culture, war and colonization. The white man is now returning to the tropics with new habits and new powers that enable him to conquer his old enemies, tropical disease and debilitation. The study of tropical ecology will be an important element in world politics.

In war, men have to withstand many peculiar or extreme conditions, for which special protective equipment had to be designed, such as the G-suit to enable a pilot to out-maneuver his enemy and the ditching suit, in which he could bail out into the sea. To meet the varied demands, there were a great variety of materials, the familiar old fibers and many new fibers and coatings of unknown value. Climatologists studied temperatures, rain and sunshine, physiologists the heat mechanism of the body in relation to diet, exercise and ambient conditions, physicists the properties of fibers and fabrics, so that the protection necessary for any set of conditions might be designed intelligently.

The many conditions might be divided according to the ancient Greek system: cold-dry, cold-wet, hot-dry, hot-wet. Different systems of clothing were devised for each, to control the micro-climate of the human body and maintain conditions of comfort and efficiency, in relation to evaporation, radiation and convection of heat. In cold-dry conditions, for example, a windproof outer cover is needed over the maximum thickness of still air. Still air is 10,000 times more efficient than textile fibers in thermal insulation but the fiber is necessary to keep it still. For this, the layers under the windproof cover must be of low density, with much air in small cells. It must also be kept dry, so that the cover should both be water-resistant, to keep rain out, and vapour permeable, to let perspired moisture out. Clothing has been evolved which is far more efficient than the traditional winter suits.

When the results of wartime research are liberated, they will be found to give valuable guidance on protective clothing for the most uncomfortable conditions of living.

The possibility of a number of textile mills in the Southeast closing because of coal shortages was averted recently when members of the United Mine Workers returned to work after a somewhat lengthy strike. One plant in Siuth Carolina halted operations for a time because of the lack of fuel, and another in Virginia slowed processes in certain departments. Others were making preparations along the same lines, but efforts of the Cotton Manufacturers Association of South Carolina and the American Cotton Manufacturers Association to secure emergency supplies, along with the miners' return to work, relieved the situation.

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P. O. Box 1225 — CHARLOTTE 1, N. C. — Telephone 3-5586
Offices and Plant: 218 West Morehead Street

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(P. O. Box 133 — Providence, R. I. — Telephone Williams 3957)

One year payable in advance	$1.50
Other countries in Postal Union	3.00
Single copies	.10

Textile Bulletin is a member of the Audit Bureau of Circulations and the Associated Business Papers, Inc.

First Southern Mill

A story published in the Oct. 14 issue of the *Raleigh News and Observer* says:

> In the year 1797 the North Carolina Legislature authorized Chistopher Taylor to raise by lottery $5,000 a year for seven years to establish a factory to spin, weave, print or dye cotton. There are no records that this mill was ever built.

This is the first time that we ever heard that any effort to build a cotton mill was made prior to the establishment in 1813 of a mill near Lincolnton, N. C., by Michael Schenck and Absolum Warlick.

The story may be true but one wonders what was done by Christopher Taylor with the proceeds of the lottery which he was authorized to run for seven years. Maybe he decided that operating a lottery was more profitable than cotton manufacturing.

The story in the *Raleigh News and Observer* says that the machinery for the mill near Lincolnton was made at Providence, R. I., by Warlick.

The facts are that Schenck and Warlick made a contract with a man named Michael Beam to build the machinery at the place where the mill was located.

The first contract they made with Beam is still in existence, also a second contract which they made with him in 1817 when they decided to enlarge the capacity of their mill.

Absolum Warlick was a brother-in-law of Michael Schenck and they were partners in the enterprise.

The *Raleigh News and Observer* also says:

> Machinery came to North Carolina with the Scotch-Irish and German immigrants from Pennsylvania.

As these immigrants, for the most part, came to North Carolina at least 50 years before the first cotton mill was built in the South, one must wonder where it was kept against the day of the first mill and why Michael Schenck and Absolum Warlick did not use some of it instead of making a contract with Michael Beam to build spinning frames for them.

The so-called Scotch-Irish immigrants from Pennsylvania, which included a great-grandfather of the editor of this publication, were very poor people and had neither the money nor means of transportation with which to bring textile manufacturing machinery with them.

It is probable that they did bring some hand spinning and hand weaving equipment because their ancestors, from the days when they lived in Bavaria and Saxony in Central Europe, had been textile manufacturers.

Their ancestors had come to Pennsylvania from Northern Ireland to where they had been induced to move from the lowlands of Scotland by a King of England who wished to establish some Protestants in Ireland and had guaranteed them against excessive taxation.

When he violated his promise and levied heavy taxes upon the woolen and linen mills which they had built, they burned some of the mills and in a period of four years about 75 per cent of them moved to America and settled below Philadelphia.

They were called Scotch-Irish because they had moved from Scotland to Northern Ireland but they had no Irish blood and very little Scotch blood, that is, very little of the highland Scotch blood.

Many years before, they had come to the lowlands of Scotland from the Lancashire section of England to engage in wool manufacturing.

They were basically Bavarians and Saxons, having originally come from Bavaria and Saxony and being commonly known as Anglo-Saxons.

They had driven the Celts out of the central portion of England and had established the textile industry in the Lancashire section.

It is probable that when the so-called Scotch-Irish made their mass immigration from Northern Ireland to lower Pennsylvania they did carry some of the machinery from the woolen mills which they had burned in their anger against the heavy taxes levied by the King of England, but it is very improbable that years later they carried any of it with them when they made their final migration to the foothills of the North Carolina mountains.

Upon the streets of any town in the Piedmont section of the South will be noted, today, girls and young women and some young men with flaxen hair.

They are a reflection of the Bavarian and Saxon blood of the so-called Scotch-Irish.

The history of these people is interwoven with textile manufacturing from the days of hand spinning and hand weaving in Central Europe.

Congratulations to S. Slater & Sons

The mills of S. Slater & Sons, Inc., at Slater, S. C., led all the mills in Greenville (S. C.) County in the 1944 Community Chest campaign with an average of $3.43 per employee and have again led this year with an average of $3.30 per employee.

An average of $3.43 or $3.30 per employee is really a remarkable showing and the employees of S. Slater & Sons, Inc., deserve congratulations.

The Advance In Textile Wages

The American Cotton Manufacturers Association has called attention to the fact that the records of the Bureau of Labor Statistics of the Department of Labor show that average hourly wage earnings of Southern cotton textile workers increased more than 84.8 per cent from the outbreak of war in Europe in September, 1939, through June, 1945. The average hourly earnings in September, 1939, when European countries already were calling desperately for textiles and when this country was beginning to expand its need for textiles for its armed services, was 36.3 cents an hour. On June 30, 1945, this figure had risen to 67.1 cents an hour which was a gain of 30.8 cents an hour.

This gain of 84.8 per cent is more than five times the 15 per cent allowed industry generally under the Little Steel Formula. Figures of the Bureau of Labor Statistics show that this was not a sudden increase but a gradual one. How this increase of 84.8 per cent or 30.8 cents an hour was registered is shown by the following figures compiled by the Bureau of Labor Statistics:

Month	*Average Hourly Earnings*
September, 1939	36.3 cents an hour
November, 1939	38.9 cents
January, 1940	39.2 cents
September, 1940	40.0 cents
April, 1941	42.6 cents
June, 1941	43.1 cents
September, 1941	45.8 cents
January, 1942	48.4 cents
April, 1942	49.2 cents
July, 1942	50.8 cents
August, 1942	53.4 cents
November, 1942	55.2 cents
March, 1943	56.0 cents
September, 1943	57.3 cents
April, 1944	60.1 cents
June, 1944	61.6 cents
May, 1945	65.1 cents
June, 1945	67.1 cents

Before the war the average textile mill worker had time for the movies, for fishing, for hunting and for other pleasurable pursuits. As the demand for cotton textiles became greater and ever greater these men and women lengthened their work week from 40 hours to 48 hours and in some cases 54 hours.

They did their part and in doing this they pushed their earnings to an all time high which gave them money with which to buy war bonds.

The men and women who stayed at their machines and those who stepped into the spots left vacant by the fighters haven't any medals or ribbons. But they do have the proud satisfaction that they, too, played an important part in the war.

Not only have wages advanced more than five times the 15 per cent increase which was allowed industries under the Little Steel Formula even more when measured in food and clothing and other things which are purchased with the money of pay envelopes.

Textile mill employees did not fare badly during the war.

Illusions About Germany

Textile manufacturers and representatives of textile machine builders, returning from visits to the American-occupied sections of Germany, report that they acquired very little information of any real value.

There had been illusions about the great progress which Germany had made in developing new textile machines and new textile processes but very few were found.

It is true that the best textile manufacturing section of Germany, Saxony, is in the hands of the Russians and closed to Americans, but in the sections visited the German textile manufacturers were behind rather than ahead of Americans.

We frankly do not understand this situation because many Germans were scientists and research minded and for many years we had understood they were very expert in handling textile fibers, especially cotton mill waste.

Some of the fabrics they reported were understood to have been produced from cotton mill waste purchased in the United States, and Americans who visited Germany were not permitted to inspect some of their waste mills.

It is true that most of the mills using cotton mill waste were in Saxony and therefore in Russian hands.

Labor Paper Issues Warning

The *International Teamster,* official organ of the Teamsters Union, warns its members:

> It is legal to strike again. (Labor was pledged not to strike while the war was on.) It is also legal to go barefooted. But in either case you may stump your toe. . . . An orgy of strikes will prevent an orderly change. It will cause one of two things, either one of them destructive to organized labor: (1) It will throw the country into a tail-spin and create a depression of unprecedented proportions; (2) it will force Congress to enact drastic laws with drastic penalties for strikes.

I AM AN AMERICAN

Today I picked up a clod from my yard, broke it, and as it sifted through my fingers I realized for the first time that this was more than dust: this was a tiny piece of America! I owned a rare treasure—a bit of the only soil left in the world today where a man can stand free and unafraid. I was standing on a piece of America, a few feet around and a thousand miles deep! Here alone in all the world could I build my future, knowing that it would be secure; and rear my children with the assurance that they, and their children, could enjoy that same security. I could stand on my piece of America, think freely and say what I thought, do what I pleased, shrink from no man, and call upon whatever god I chose. Three deeds protect my land. One is locked in my strong box—my purchase deed. The others are enshrined and locked in the hearts of every American—the Declaration of Independence, and the Constitution. I am a fortunate man, the indisputable owner of my own life, and the land on which to live it. I am an American!

—HOBART FRANKS.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

EASTMAN, GA.—Eastman Cotton Mill, scheduled to increase its output by about one million yards of cloth annually, plans to spend $125,000 modernizing its plant.

CLOVER, S. C.—Construction of a new textile mill building, to occupy a space 145 by 105 feet and to cost approximately $100,000, is progressing here. The new mill will make specialty cotton yarns and will employ about 125 people. It is scheduled to be completed some time in January, 1946. The plant will be owned by Boshamer, Inc., and operated by Bocar Mills, Inc., two new corporations. Carey C. Boshamer, president of Clover Spinning Mills, also will be president of both corporations.

CORNELIA, GA.—Plans have been made for construction of a lumite plant for Chicopee Mfg. Co. of Georgia. The structure is to be one story, fireproof, and 427 by 152 feet.

CHARLOTTE, N. C.—Holders of Chadwick-Hoskins Co. preferred stock were informed recently that directors of the Charlotte company voted to retire this entire $701,800 issue on or before Nov. 15 at par plus six per cent and accrued dividends. The directors also voted to pay on that date the regular four per cent semi-annual dividend, final dividend on this preferred stock.

ANDERSON, S. C.—M. Lowenstein & Sons, Inc., has purchased a block of stock in Orr Cotton Mills here and three representatives of the Lowenstein organization will be added to the board of directors of the mill. No report on the amount of stock changing hands was available, but it had been previously reported that the Lowenstein offer was contingent upon the purchaser securing 51 per cent of the outstanding common stock issue and that $200 a share had been offered. Orr manufactures wide print cloths, and is equipped with 133 cards, 1,736 broad looms and 70,128 ring spindles.

MT. HOLLY, N. C.—Construction work underway at Globe Mills is expected to provide, when completed in about nine months, some 34,000 feet of additional floor space. This footage is expected to effect double the present capacity of production. At least 60 more jobs will be available. Equipment to be installed in the modernized plant can be used in the manufacture of either cottons or synthetic yarns. Plans call for equipping the building with an oil heating system and air conditioning.

DECATUR, ALA. — Goodyear Decatur Mills, equipped during the war to produce 67,500,000 pounds of lisle and rayon cord per year, is among an additional group of 18 surplus government-owned properties being offered for sale or lease by Reconstruction Finance Corp.

GREENSBORO, N. C.—Plans for the consolidation of 14 large Carolinas textile weaving and finishing plants and a nationwide selling organization into the Proximity Mfg. Co. have been disclosed. Proximity, to be parent operating and holding company of the new organization, amended its charter recently so as to change its authorized capital stock from 10,000 shares with par value of $100 per share to 1,000,000 shares with par value of $1. Five hundred thousand shares are to be delivered to present stockholders in exchange for 5,000 shares of stock valued at $100 per share. Proximity also is to offer its common stock to stockholders of Cliffside (N. C.) Mills on the basis of 1.67 shares for one; to the Florence Mills, Forest City, N. C., on the basis of 2.39 shares for one; to the Mineola Mfg. Co., Gibsonville, N. C., on the basis of 22.08 for one; and the Salisbury (N. C.) Cotton Mill on the basis of 18.45 for one for their shares in these respective corporations. In addition to the seven corporations in the reorganization, Asheville Cotton Mills, Eno Cotton Mills of Hillsboro, the Revolution Cotton Mills of Greensboro, all of which are at present wholly or majority owned by Cone Export and Commission Co. and Proximity, will be a part of the revised organization.

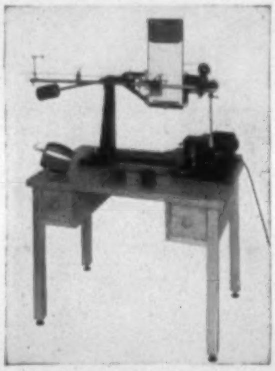
Operating Executives of Southern Mills Resume Meetings

Plans have been completed for the first two divisional meetings to be sponsored this fall by the Southern Textile Association. The Gaston County Division will meet at 7:30 p. m. Friday, Nov. 2, in the Boy Scout Headquarters Building at Gastonia, N. C. The program will include addresses by R. Dave Hall, prominent textile executive of Belmont, N. C., and M. L. Rhodes, superintendent of the North Carolina Vocational Textile School at Belmont. H. G. Winget, chairman, will preside.

The association's Eastern Carolina Division will meet at 9:45 a. m. Saturday, Nov. 10, in the Erwin Cotton Mills Auditorium at Durham, N. C. The principal address will be made by Elliot Grover, head of the yarn manufacturing department in the North Carolina State College school of textiles. Mr. Grover recently completed duties as a member of the American textile team in Germany, and will report his observations on this mission. A technical discussion in open forum style will cover such subjects as opening and picking, slashing, weaving, drawing and spinning. Virgil E. McDowell of Roanoke Rapids, N. C., is chairman of the Eastern Carolina Division.

As the usual custom, these meetings are open to all interested textile plant operating executives, whether or not they are S.T.A. members.

General meetings of the Textile Operating Executives of Georgia will be resumed in Atlanta, probably sometime in November, according to an announcement by Robert W. Philip, secretary and treasurer of the organization.



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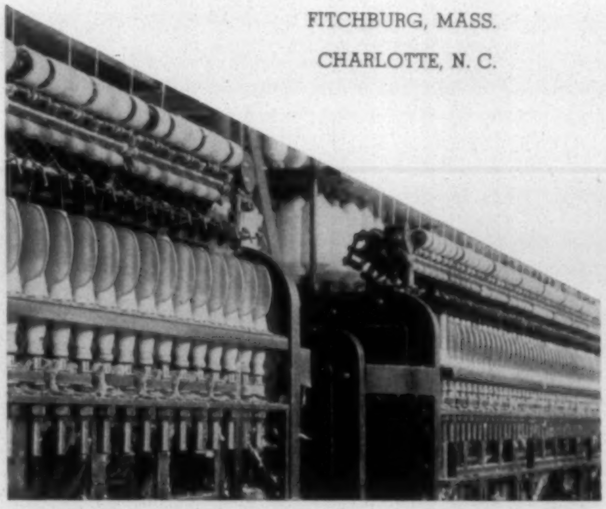

Promotions, Resignations, Elections, Transfers, Appointments, Honors, Notes on Men in Uniform, Civic and Associational Activity

PERSONAL NEWS

H. C. Skelton has become general superintendent of the Alabama Division, California Cotton Mills, Uniontown, Ala.

Dr. W. B. Burnett, who for the past six years has been associated with Tubize Rayon Corp. in Rome, Ga., has accepted the position of director of the University of Wichita Foundation for Industrial Research at Wichita, Kan. Dan Lease will assume Dr. Burnett's duties at Tubize, with the title of superintendent of viscose operations. Mr. Lease has had 16 years of experience in viscose production, having been affiliated with Tubize since the Rome, Ga., plant was built in 1929.

Oliver L. Bennett, left, has joined the technical sales staff of the Warwick Chemical Co. plant at Rock Hill, S. C., where he will act as consultant to the company's sales staff in the Southern territory. Mr. Bennett has been at Riverside & Dan River Cotton Mills, Danville, Va., until recently, and in the past has been associated with Pacific Mills at Lyman, S. C., Southern Bleachery at Taylors, S. C., and the Trion (Ga.) Co.

Robert M. Cushman of Laurens, S. C., has accepted the position of superintendent of Pomona Mills, Greensboro, N. C.

P. B. Mitchell, who has superintended Joanna Textile Mills, Goldville, S. C., for the past 18 years, retired Oct. 1. He was succeeded by Joe Delaney as superintendent. He has been connected with Joanna for the past 17 years, having come to Goldville from Lowell, Mass. W. K. Waits, overseer of spinning and acting night superintendent, has been promoted to assistant superintendent, succeeding Mr. Delaney.

Julius W. Abernethy, president of Carolina Mills, Inc., and New City Mills Co. of Newton, N. C., has been re-elected chairman of the Newton Community Chest.

Robert Jackson of Gastonia, N. C., has accepted a position in the Charlotte office of the American Viscose Corp. sales department. A graduate of Clemson College, Mr. Jackson formerly was manager of Gastonia Full-Fashioned Hosiery Mill and earlier was connected with National Weaving Co. at Lowell, N. C. He is president of the Gastonia Chamber of Commerce.

T. J. McNeely has severed his connection with Rocky Creek Mills at Turnersburg, N. C., after a short association with that organization. E. L. Hollar is superintendent of Rocky Creek Mills, and Mr. McNeely formerly was superintendent of Locke Cotton Mills Co. at Concord, N. C.

Fuller E. Callaway, Jr., has retired as president of Callaway Mills at LaGrange, Ga., and has been succeeded by A. B. Edge, Jr. Mr. Callaway, at a stockholders' meeting this month, announced that he was disassociating himself from active managerial duties with the organization and in the future would devote himself to the work of various foundations with which he is connected. A. U. Priester, Jr., has been elected vice-president and general manager of the Callaway HDV Division, succeeding Mr. Edge. T. B. Kersey replaces Mr. Priester as assistant vice-president of the HDV Division, and T. M. Hampton has succeeded Mr. Kersey as superintendent of the Hillside Plant. . . . R. D. Williams, Jr., who for the past seven years has been sales manager for Callaway Mills, has been named president of Callaway Mills, Inc., the manufacturing firm's recently organized and wholly-owned sales agency. Sales offices will be maintained in New York, Boston, Akron, Detroit, Chicago, San Francisco and other cities.

Dr. B. G. Zimmerman, left, has been appointed technical director of Morton Chemical Co. at Greensboro, N. C., where he will supervise expansion of research activities in the company's laboratories and plant. The firm is now completing work on rebuilding and re-equipping its plant for the manufacture of organic specialties, following the fire of July, 1944.

Richard V. McPhail, with extensive experience in textiles in North Carolina prior to his service of three years with the United States Coast Guard, has joined the managerial staffs of Ross Fabrics, Inc., and Duff Looms, Inc., Morganton, N. C., as assistant to Charles E. Ross, general manager. Mr. McPhail graduated from N. C. State College in 1939 and for a time he worked with Burlington Mills Corp. and was night superintendent of Locke Cotton Mills, Concord, N. C., before entering the service. He was discharged from the service in August with the rank of lieutenant (jg).

William Marshall has resigned as secretary of the American Cotton Manufacturers Association, with headquarters in Charlotte, to return to Wadesboro, N. C., and resume the private practice of law. Mrs. Elizabeth Lammie has been obtained to execute a portion of the secretarial duties pending discharge from the Army of a candidate for the position. Mrs. Lammie formerly was assistant secretary of the Virginia Bankers Association in Richmond. She is a graduate of Martha Washington College.

WITH THE MILITARY — Capt. Norman R. Peterson, who is pictured at left below, has returned to Dow Chemical Co. at Midland, Mich., to take up new duties specializing in development work on some of the newer Dow coatings derived from styrene and Saran. For three years he was attached to the Army's Strategic Air Forces. . . . Cpl. J. A. Sorrells, Jr., has resumed his position as service engineer in the South for New York & New Jersey Lubricant Co., following lengthy Army service in the Mediterranean theatre. . . . Henry R. Tichenor has returned to his former duties with Walton Cotton Mill Co. at Monroe, Ga., following 35 months of service with the Navy. . . . Maj. Edward J. Bullard is now in this country and expects to return soon to his former duties as treasurer of E. H. Jacobs Co. at Danielson, Conn., and Charlotte. Major Bullard was flight commander of the A.A.F. 320th Bomb Group, which saw much service in the European theatre. As development engineer for his company he will concentrate on improving and reducing the cost of his firm's line of loom supplies. . . . Capt. Max D. Thomason, a veteran of Army campaigns in France and Germany, has returned to his former duties in the maintenance department of the Cannon Mills Co. Plant No. 1 at Kannapolis, N. C. . . . Capt. Rufus M. Person, Jr., who spent three and one-half years with the ordnance branch of the Army Air Forces, has returned to sales duties at Mill Power Supply Co., Charlotte.

J. D. Schenck Carpenter, manager of the accounting department of Cleveland Mill & Power Co., Lawndale, N. C., who rounded out 50 years of service with that firm in June of this year, expects to end his connection with the firm some time this fall due to failing health. The half-century of

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TEXTILE CHEMICALS
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George M. Hambleton, Gen. Mgr.
NASHUA, NEW HAMPSHIRE
Telephone: 2406

association with the mill gives Mr. Carpenter the longest continuous employment record of any employee the mill has had in its 72 years of operations.

John W. Elliott, who received his early training in the Philadelphia, Pa., plant of the Steel Heddle Mfg. Co. and who for the past ten years has been managing director of the Steel Heddle Co. of Canada, Ltd., Montreal, has been appointed representative of the Steel Heddle Mfg. Co. of Philadelphia for the Canadian territory. He will handle the complete line of flat steel heddles, harness frames, warp preparation equipment, drop wires and loom harness accessories made by the plants in the United States, as well as the reeds manufactured at the Canadian plant. He will continue to serve as managing director of the Canadian interests, assisted by Emile Poure.

Macon P. Miller has been appointed director of industrial and public relations for the mills of Marshall Field & Co. manufacturing division. He succeeds R. H. Tuttle, who has been appointed manager of the Zion Lace Curtain Mill at Zion, Ill. Mr. Miller was for a number of years with manufacturing organizations as personnel director, and recently served as a member of the appeals committee of the National Labor Board.

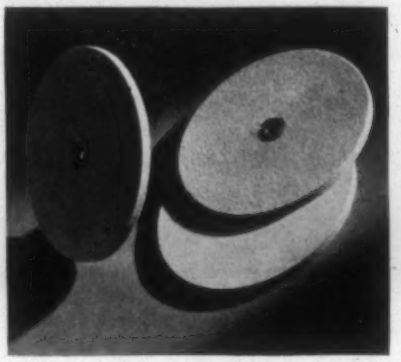
John W. Clark, president of Locke Cotton Mills Co. at Concord, N. C., and Randolph Mills, Inc., at Franklinville, N. C., was the principal speaker at recent ceremonies observing the 56th anniversary of North Carolina State College at Raleigh.

Ernest W. Sharpe of Sylacauga, Ala., formerly an operating executive for several Southern textile plants, terminates his duties Oct. 20 as inspector for the textile procurement of the United States Army Quartermaster Corps.

Leonard A. Yerkes, recently retired as general manager of the E. I. du Pont de Nemours & Co. rayon department, and John P. Maguire, president of the New York City factoring concern which bears his name, have been elected to the board of directors of the United States Finishing Co.

Duplex Refacing Stone Promoted By Taber Corp.

A new duplex refacing stone for their calibrase wheels has been announced by Taber Instrument Corp. of North Tonawanda, N. Y., manufacturer of the Taber abraser. The abraser is described as a testing instrument for determining the rate of wear or abrasion resistance of a wide range of materials. The wearing action is performed by dual calibrase wheels bearing against the specimen under constant pressure, revolving in opposite directions, one sliding radially toward the outside, the other toward the inside of the wear path. To maintain a uniform wearing action the calibrase wheels are refaced at stated intervals. Abrasive coated paper discs were formerly used for this purpose and have now been replaced by the new duplex refacing stone.



One side of the stone is a course grit for refacing the wheels at the start of a test and the other side is a fine grit used at intervals during a test. The advantage claimed by the manufacturer for the duplex refacing stone is improved control of the calibrace wheel surfaces by eliminating or minimizing the possibility of picking up additional grit, thus assuring standardization of the wheels.

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STARCH CO.
Columbus 15, Ohio

Statement of the Ownership, Management, Circulation, etc., Required by the Act of Congress of August 24, 1912 and March 3, 1933.

Of Textile Bulletin, published Semi-Monthly at Charlotte, N. C., for October 1, 1945.

State of North Carolina
County of Mecklenburg

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Junius M. Smith, who, having been duly sworn according to law, deposes and says that he is the Business Manager of Textile Bulletin and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section of March 3, 1933, embodied in section 537, Postal Laws and Regulations, to wit:

That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, Clark Publishing Co., Charlotte, N. C.; editor, David Clark, Charlotte, N. C.; business manager, Junius M. Smith, Charlotte, N. C.

That the owner is: Clark Publishing Co., Charlotte, N. C.

That the known bondholders, mortgagees and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

(Signed) JUNIUS M. SMITH,
Business Manager.

(Signed) MARGARET L. ROBINSON,
Notary Public.

(My commission expires March 5, 1946.)

Sworn to and subscribed before me this 2nd day of October, 1945.

Cotton Now Used In Paper Making

Cotton, long considered the most versatile of all fibers, now is being used in the manufacture of high-grade paper for war bonds, currency, photographs, maps, insurance policies, and other papers that require much handling, according to the National Cotton Council. The manufacture of cotton paper is encouraged by the U. S. Department of Agriculture under a program designed to develop new uses for cotton, help reduce surplus stocks of short staple cotton, furnish much critically needed raw material for the making of high-grade paper, and aid in providing warehouse space for the 1945 cotton crop.

A maximum of 50,000,000 pounds of cotton not less than three-fourths-inch staple and of grades not lower than the lowest grade in universal standards for American upland cotton may be used under the program during 1946. A plan to promote the use of cotton in the manufacture of paper has been under study by the USDA for several years. Tests were made by the American Writing Paper Association, co-operating with USDA, and proved that cotton could be used efficiently in the production of paper.

Dover Industries Now In Plating Business

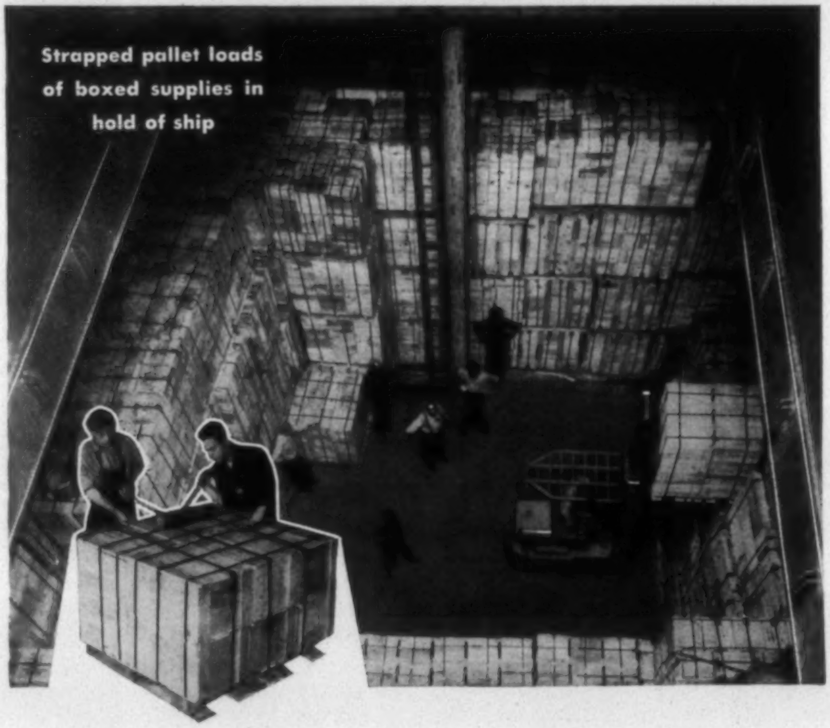
Dover Industries, Inc., a new enterprise organized for the manufacture and jobbing of metal articles requiring plated finishes, has begun operations at its plant located at 2929 North Campbell Ave., Chicago 18, Ill., a site comprising 45,000 square feet of space. Complete modern facilities for hard chromium plating and heavy nickel plating on equipment weighing up to five tons and 22 feet in length have been installed. The company's executives each have had from ten to 20 years of experience in the metal finishing industry. They are L. D. Jensen, formerly vice-president of Chromium Corp., president; O. A. Wettlaufer and E. L. Berkenkotter, vice-presidents; and K. W. Schwartz, treasurer.

Reyburn Co. Moves Carolinas Office

The Carolinas branch office of Reyburn Mfg. Co., Inc., manufacturer of tags, gum labels and other paper utilities at Philadelphia, Pa., has been moved from Winston-Salem, N. C., to Charlotte. John G. Woodruff, a veteran of 18 years in the business, continues in charge of the Carolinas office. The Reyburn firm, with which Mr. Woodruff has been associated during the past several years, celebrates its 50th anniversary this fall.

Towmotor Corp. Resumes Production Of Tractors

• The manufacture of gasoline-powered industrial tractors has been resumed by Towmotor Corp. of Cleveland, O., after having devoted its production facilities during wartime to the manufacture of lift trucks. The new model tractor, embracing several outstanding design and construction features, is said to be capable of pulling any load that can be placed upon industrial-type trailers. It is believed to be especially suited for working in confined areas such as narrow factory aisles. Towmotor Corp., recently freed from allocation orders, is now able to accept civilian orders.



Strapped pallet loads of boxed supplies in hold of ship

ACME UNIT-LOAD STRAPPING

for Pallets and Skids

A pallet, like a skid, is a platform built to support a number of containers or products which, when strapped together, form a *unit load.*

Pallet loading conserves manpower by reducing the number of units handled—in packing, loading, warehousing, and unloading. Pallet loading conserves container and packaging materials; conserves space — in warehouses, freight cars and ships. Throughout, pallet loading protects against damage.

Acme engineering is cooperating with the Armed Forces in pallet loading, and effecting the same economies for war-time shipping as applied in the past to the movement and handling of peacetime production.

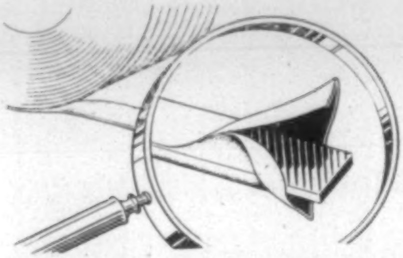
ACME STEEL COMPANY

CHICAGO 8, ILLINOIS, 2838 ARCHER AVENUE

ACME STEEL CO.
CHICAGO

New Steel Box-Strapping Introduced By Gerrard

"Fiber-Steel," described by its manufacturers, A. J. Gerrard & Co. of Chicago, Ill., as a tough, pliable, new box strapping consisting of a highly flexible steel band core sheathed in a tough waterproofed kraft paper, has been made available. Further description of the product claims it to be smooth, wax-finished and scuff-resistant, providing proper tension without excessive biting into a corrugated box. According to the manufacturers, Fiber-Steel strap can be handled by girl operators without danger of cut fingers. Because of its paper covering, trade-marks and company names can be printed directly on it. Full information on the new strapping may be obtained by writing A. J. Gerrard & Co., 221 North LaSalle St., Chicago 1, Ill.



Metallic Treatments Described in Booklet

The availability of the a new bulletin, *The Quantitative and Qualitative Determination of Copper, Zinc and Mercury in Treated Fibers and Fabrics,* has been announced by Nuodex Products Co., Inc., Compounds of copper, zinc, and mercury are commonly used as fungicides to rot-proof thread, yarns, twine and rope. This bulletin, it is believed, presents for the first time simple but detailed methods by which the textile or cordage manufacturer can analyze treated materials to control the fungicide content. The analyses described have been selected by the Nuodex laboratories to combine maximum accuracy, speed, convenience of use under practical working conditions, and applicability to treated fabrics or cordage from which the metal must be extracted before the analysis can be completed. Anyone interested in securing a copy of this bulletin may obtain it free of charge by writing Nuodex Products Co., Inc., Elizabeth, F, N. J.

Brown Instrument Co. Producing for Peace

Continued full employment and maximum production have gone into effect at the Philadelphia plant of Brown Instrument Co., a division of Minneapolis-Honeywell Regulator Co. E. B. Evleth, vice-president of the industrial instrument division of Minneapolis-Honeywell Regulator Co. stated shortly after cessation of hostilities that the Brown Co. had few reconversion problems. Brown products, he pointed out, require no changes from war to normal requirements.

"Economic studies, including wartime planning for peace, have made it possible for our company to avoid most if not all reconversion problems," said Mr. Evleth. "We are fortunate," he added, "that we are producing the same electronic and other standard instruments for peace that we produced, entirely for war, during the past four years. The only changes involve technological improvements, induced and perfected by war requirements. All these improvements, plus others in the blueprint stage, will be available for post-war industry. "We have sufficient manpower for the immediate future, including provisions for rehiring returning veterans. It is possible, however, we may step up our output once industry starts producing for the expected heavy domestic and export demand."

P. T. I. Seeking Funds In Southern States

G. A. Berkstresser, Jr., Southern area chairman for the current building fund campaign of the Philadelphia Textile Institute, conducted a campaign meeting for this area on Friday, Oct. 12, at Hotel Charlotte, Charlotte. The program included a luncheon at 1 o'clock, followed by afternoon and evening conferences. This was the final meeting before solicitation of advance gifts was begun by P.T.I. alumni.

'Coolness' of Summer Fabrics Is Tested

Investigation of methods of obtaining a measure of relative coolness of fabrics for summer wear is being conducted by the United States Testing

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Co., Inc., Hoboken, N. J. A test method has been developed which classifies materials as to their "coolness" and suitability for summer wear. The influence of such factors as moisture penetration, still and moving air, and exposure to various light illuminations are taken into account in the measurements.

Fractional-Horsepower Drive Catalog Is Published

Complete price lists and specifications on the new line of fractional-horsepower pulley sheaves and belts are contained in the the latest *American Fractional-Horsepower Wedgbelt Drives Catalog*. The catalog also contains four pages of condensed and simplified drive tables for a wide range of center distances and drive ratios. Copies may be obtained from The American Pulley Co., Dept.664, 4200 Wissahickon Ave., Philadelphia 29, Pa.

New 'Harcast' Electrode Is Harnischfeger Product

"Harcast," described as an all-position mild steel electrode for welding and repairing cast iron, is announced by Harnischfeger Corp. of Milwaukee, Wis., manufacturer of P & H welding equipment. Representing years of research and experimentation, according to its manufacturer, "Harcast" fuses well with either mild or medium carbon steel, making it ideally suited for joining cast iron with other types of steel.

Usable with either AC or DC machines (straight or reverse polarity on DC) "Harcast" is reported to work well at low amperage, minimizing the dilution effect at the fusion zone and permitting a higher quality of machining. Reverse polarity on DC current is said to produce a smooth bead with deep penetration and on DC straight polarity penetration is less, higher beads are built, and there is less spread in the fusion zone.

Post-War Commodities Report Is Available

A book-length report, *Post-War Imports and Domestic Production of Major Commodities,* comprising a series of estimates of the post-war production, employment, consumption, and import trade of all articles the imports of which in 1939 were valued in excess of $100,000, devotes 248 pages to textile fibers and manufactures. The complete volume of 1,321 pages contains 450 articles or groups of closely related commodities. The report was compiled by the United States Tariff Commission at the instigation of a Senate resolution. The complete volume, or the separate section devoted to textile fibers and manufactures, may be purchased from the superintendent of documents, Government Printing Office, Washington 25, D. C.

Hercules Powder Co. has announced plans for increasing production of soluble nitrocellulose by 1,000,000 pounds monthly at the company's Parlin, N. J., plant. This expansion will be accomplished through the use of equipment used in military production at the Parlin plant, with the addition of new dehydration and distillation apparatus.

Work on the conversion is being rushed to completion, and it is expected a part of the new installation will be ready for production some time this month.

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Many a packing routine is shortened and shipping safety gained by the Stanley Steel Strapping System. Modern practice proves that lighter crates and cartons banded with steel save time and materials in place of bulkier wooden cases.

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"Textile Center of the South"

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Whitin Casablancas Long Draft attachments for 13 Whitin 108-spindle self-balanced rail 9 x 4 ½ intermediates, 7″ gauge, including knurled top and bottom middle rolls. Immediate delivery.

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Experienced Time Study Man—Southern Plant with nationally known manufacturing concern.

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- HOLT'S Roller Glue.
- "GBC" Belt Cement
- BILTRITE Canvas Lug Straps.
- DAYTON "Thorobred" Loom Supplies.
- DAYTON V-Belts and Pulleys.

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Manufacturers of Leather Belting

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POSITION WANTED by man with 30 years' experience in cotton mill work, with 25 years in supervisory position. Experienced as Overseer Carding, Overseer Twisting and Filling Spinning, Overseer Weaving, Overseer Clothroom, Assistant Superintendent, Manager and Superintendent. Also experienced in experimental research. Have just been released from work with Textile Procurement Division of U. S. Army Quartermaster Corps as inspector of textiles. Also experienced in buying and classing cotton; buying supplies, etc.; and selling product of mill. Can do good job for mill that needs a man to make money for them. Good references. Write "Box 82," care Textile Bulletin.

WANTED—Position as overseer carding and spinning, either or both. Can superintend yarn mill. Experienced on carded, combed and blends. Now employed. Can furnish best of references. Address "Overseer Carding," care Textile Bulletin.

WANTED—Job as Master Machinist. Am now employed. Have had wide and varied experience; will consider good mill anywhere. Would rather get with mill making improvements and building. Address "J. O. H.," care Textile Bulletin.

MILL ENGINEERING—Registered Professional Engineer, formerly with Robert & Co., wants job making mill construction plans; fee or salary basis. Write "Box S-D," care Textile Bulletin.

POSITION WANTED as Superintendent of medium size mill or overseer of large weave room. Also experienced cotton classer. A-1 references. Address L. W. D., care Textile Bulletin.

WANTED—Position as Superintendent; 25 years' experience on sales yarns and woven fabrics, cotton; rayon, acetate and wool mixes and blends; in best of health; strictly sober; good references as to character, ability, etc. Reply to "Box 33," care Textile Bulletin.

WANTED

Rayon weaving overseer for XD Draper looms. Write stating past experience and qualifications.

Address J. W.,
care Textile Bulletin.

WANTED TO BUY

1—Frame Saco-Lowell Drawing, 6 deliveries, metallic rolls, 12″ coilers, or
2—Frames, 4 deliveries each.

BRODNAX COTTON MILL
Phone 13F05 Brodnax, Va.

Wanted

TIME STUDY MAN

Opportunity for young man with two or three years' experience with point or unit incentive system for work in Southern Alabama Mill. State age, marital status, experience, education and salary desired. Write confidentially to

Charles P. Raymond Service, Inc.
294 Washington St., Boston, Mass.

Over forty-five years Confidential Employment Service for Mills.

Wanted

YARN MILL SUPERINTENDENT

A 6,400-spindle cotton yarn mill in Alabama requires a superintendent to take complete charge of entire mill. Must be familiar with every phase of operation from raw cotton to winders. To one who is a thoroughly capable producer and able to handle labor understandingly, a real opportunity is offered at a good salary.

Write "Box A-295,"
care Textile Bulletin,
giving full particulars.

TIME STUDY MAN

Two time study men with textile experience wanted by large South Carolina textile plant.

Write "Box 1230,"
care Textile Bulletin.

WANTED

Newly organized Mill and Textile Supply Company, having adequate capital and experienced aggressive salesmen, with established contacts, desires connections representing reputable manufacturers in State of Alabama.

Communicate with Box 3555,
West End Station **Birmingham, Ala.**

TEXTILE ENGINEER WANTED

Give experience record in detail.

J. N. PEASE & CO.
Charlotte, N. C.

WANTED

Weave Room Superintendent for 38 wide Model L Draper Looms located in small town in North Georgia. Must be college-trained with practical experience and must also know slashing and warping. In reply give detailed account of experience, education and salary desired.

Write "Box K-J,"
care Textile Bulletin.

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Prizes Awarded for Textile Show Entries

Purchase awards in the three divisions of woven, printed and synthetic textiles in the second International Textile Exhibition, sponsored by the art department of Woman's College of the University of North Carolina, Greensboro, to present a comprehensive picture of artistic activity in this field today, have been announced by the jury. From the 215 entries received from commercial and free lance designers in all parts of the country, the jurors also selected the pieces which will be shown when the exhibition opens Nov. 5 in Weatherspoon Art Gallery at the college. The jury, Mrs. Dorothy W. Liebes, San Francisco, Calif., and Dan Cooper, New York City, both eminent textile designers, and Miss Noma Hardin, of the art department staff judged entries for awards and exhibition.

In the division of woven textiles, Robert D. Sailors, Cranbrook Art Academy, Bloomfield Hills, Mich., won first place, and Marianne Strengell of Bloomfield Hills, second place. Helen Druley Ecles, Sumas, Wash., received third award, and Mary Elizabeth Sullivan, Eugene, Ore., fourth. First award in printed textiles went to Norvella M. Weise, San Francisco, and second to Henrietta Virginia Carter, Brooklyn, N. Y. Donalda Fazakas, Flushing, N. Y., received third award in this division, and Jill Mitchell, Cranbrook Art Academy, Bloomfield Hills, Mich., fourth place.

In the synthetic division, new this year and including woven textiles containing 50 per cent or more synthetic yarns, first award was given Lea P. Miller, Berkley, Calif. Other winners are Georgia B. Chigren, Sioux City, Iowa, second; Berta Frey, New York City, third, and Stella L. LaMont, Dallas, Tex., fourth.

Mathieson Cited for Excellence of Report

The Mathieson Alkali Works, New York City, has been awarded the *Financial World* citation and trophy — the "Oscar of Industry"—for the excellence of its 1944 annual report. Mathieson's report was selected as one of the two best stockholders' reports in the chemical industry. Awards were made for the two best reports in each of 50 business classifications, selected from a total of 2,500 entries. All were judged on the basis of financial, statistical and editorial content, format, typography and illustration.

The Mathieson report was judged a winner in the chemical classification by a board consisting of Dr. Lewis Haney, professor of economics at New York University; Norman Bel Geddes, industrial designer; C. Norman Stabler, financial editor of the *New York Herald Tribune;* Glenn Griswold, former publisher of *Business Week* magazine; and Sylvia F. Porter, financial editor of the *New York Post.*

Use of high-tenacity rayon cord in the manufacture of synthetic tires has been extended to include all smaller sizes of synthetic truck and bus tires, the War Production Board's rubber bureau announced Oct. 4. Rayon cord also may be used now in the production of all sizes and tread types of synthetic tires built for road graders, tractors and implements. This newest relaxation in the regulations governing the use of high-tenacity rayon cord in rubber products was accomplished by Amendment 8 to Appendix II, Rubber Order R-1. The relaxation was made possible as a result of the reduction in military requirements.

Proctor & Schwartz Opens New Charlotte Office

In order to more effectively serve Southern industry, Proctor & Schwartz, Inc., Philadelphia textile equipment manufacturing firm, has announced the opening of a new branch office at Charlotte. The branch office, which was opened Oct. 1, is located in the Wilder Building. This marks the first time that Proctor & Schwartz, Inc., has operated a direct branch in this city, although up until recently this firm was represented by an agency in Charlotte.

The new branch will be under the direction of John R. Schenck, left, who assumes his new duties after more than three years' service in the U. S. Army, from which he has recently been discharged with the rank of major. Prior to his entry into the service, Major Schenck was associated with the agency which represented Proctor & Schwartz in Charlotte and is well known throughout the South. All during his three years of service in the Army, Major Schenck has been in close touch with development work in the field of textiles. He was attached to the engineering division of the U. S. Army Air Forces at Wright Field. One of Major Schenck's earliest achievements in the Army was his development of virtually every single item of the U. S. Army Air Forces' new type flight clothing. In answer to a request from the Eighth Air Force in England, Major Schenck prepared specifications and expedited delivery of body armor for AAF flight personnel in what is considered record time, according to a commendation from the Air Forces. The new types of life rafts carried in AAF planes represent another of Major Schenck's Army accomplishments. Emergency water containers and special paulins of his design have become standard equipment for both the Army and Navy. Another of his developments is a fog dispersing system known as "Fido," for aid in landing and taking off under reduced visibility conditions when normal operations would be dangerous, if not impossible.

In making the announcement of Major Schenck's appointment to his new post with Proctor & Schwartz, Inc., George W. O'Keeffe, vice-president in charge of the firm's dryer division sales, said: "Even though, strictly speaking, Major Schenck has been away from the textile industry, in reality he has been closer to modern development in the field of textiles and fabrics than many who have remained on civilian work all during the war. We consider ourselves fortunate in being able to appoint this man to such an important position in the South."

Facts and Figures On Latin America

A four-page, charted and detailed pamplet embracing South American statistics of populations, areas, principle crops, industries, exports, imports, etc., is offered by the Pan American Society of Quito, Ecuador, S. A., to business executives interested in either exports or imports from or to South America. The pamphlet is the result of first-hand investigations in Latin America by the society's staff of experts. The society also has prepared a highway map of all Latin America, to serve also as a tourist's guide. This material is offered free upon request, preferably by air mail and with 15 cents postage, to Sociedad Panamericana (Pan American Society) at Cassilla 315, Quito, Ecuador, S. A.

Photo by Robert Yarnall Richie

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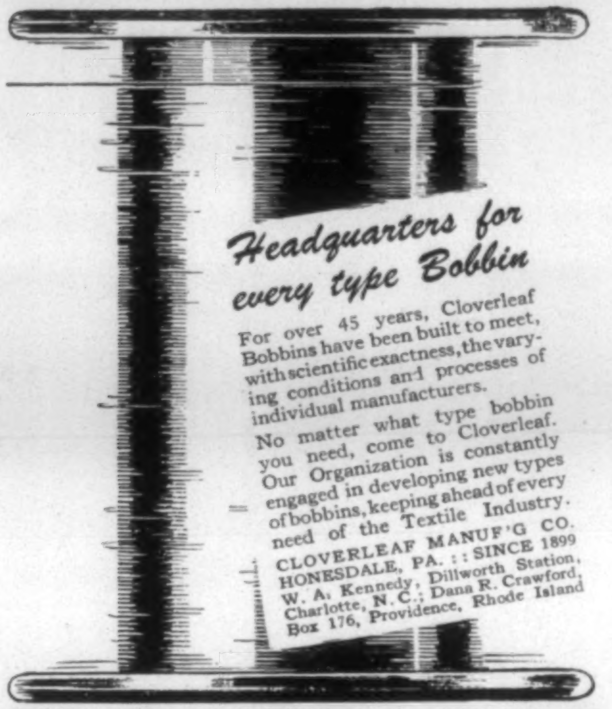
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Mill Equipment On Decrease Since 1929

An inventory as of May 29, 1943, of the equipment in the United States used in preparation and fabrication of woolen and worsted products indicates there was considerably less machinery in possession of wool manufacturers than was held in 1929. This is indicated in data compiled by the industry division, Bureau of the Census, for the administrative use of the textile clothing and leather bureau of WPB.

There were then 1,661,818 woolen spinning spindles and 1,981,084 worsted spinning spindles, which represented decreases of 28 per cent and 22 per cent, respectively, from the totals reported in 1929. The May, 1943, total of 43,210 woolen and worsted looms was 38 per cent less, and the total of 6,557 carpet and rug looms was 36 per cent less.

Although the number of looms has decreased, mechanical improvements in construction and faster operating speeds have tended to offset losses in productive capacity. In 1900, only looms then considered as modern were operating at speeds of 115 to 120 picks per minute. When this survey of machinery was made, 94 per cent of the 1,068 narrow automatic looms and 61 per cent of the 27,957 broad automatic looms were operating at speeds in excess of 120 picks per minute; 13 per cent of the broad automatic looms were operating at a speed of 130 picks per minute, and 38 per cent were operating at 120 to 129 picks per minute. Of the 1,068 narrow automatic looms in place, 69 per cent were running 130 picks per minute or faster.

Wool manufactures in May, 1943, as in the past, were largely concentrated in the New England and Middle Atlantic states. Massachusette was the most important state in the terms of the amount of wool machinery, with the exception of wool carpet and rug looms in which New York led the group. When compared with 1939, Western and Southern regions showed increases in the number of woolen and worsted spindles and looms, but other regions showed declines in the amount of this equipment in place.

Approximately 70 per cent of the 2,582 worsted combs in the United States were located in the New England area, with approximately 44 per cent of the total concentrated in Massachusetts. About 71 per cent of the 1,957,503 worsted spindles were located in New England, with about 35 per cent of the total in Massachusetts.

However, the distribution of the 1,653,550 woolen spindles was somewhat different, since only 52 per cent were in New England and only 20 per cent in Massachusetts. The Middle Atlantic states had about 25 per cent of the total, and the Southern, North Central and Western regions had about 23 per cent of the woolen spindles. Fifty-nine per cent of the 42,213 woolen and worsted looms were in New England, with about 26 per cent in Massachusetts and about 23 per cent in the Middle Atlantic states. Seventy-four per cent of the 3,488 narrow and 78 per cent of the 2,422 broad wool carpet and rug looms were located in the Middle Atlantic states; 37 per cent of the narrow looms and 50 per cent of the broad looms were located in New York.

Some idea of the degree of vertical organization in the wool manufacturers' group of industries is also brought out by the statistics. Establishments which operated looms producing woolen fabrics, other than carpets and rugs, had in their possession over 75 per cent of the 1,653,550 woolen spindles and over 56 per cent of the 1,957,593 worsted spinning spindles.

Although the specialized industries of scouring, garnetting, dusting, combing and dyeing held an important position in the wool manufactures group, substantial quantities of the equipment used in these industries were located in plants classified as woolen and worsted yarn mills, woolen and worsted goods mills and wool carpet, rug and carpet yarn mills.

Concentration of wool manufactures in large establishments shows that in most cases 50 per cent or more of the equipment was located in less than 20 per cent of the establishments reporting. Comparison with the current reports for the period ending June 2, 1945, shows that no significant changes have occurred in machinery inventories since May 29, 1943, except in the number of woolen and worsted looms.

Cotton Men Discuss Labor and Competition

The immediate future of Northern cotton mills is bright, but after current shortages are met there may be a difficult period, Russell T. Fisher, president, told members of the National Association of Cotton Manufacturers at their annual meeting in Boston, Mass., Oct. 3. Among the problems faced by New England mills, he said, are the higher price of American cotton, sharply rising labor costs, strong competition from other industries and the threat of imports from European mills.

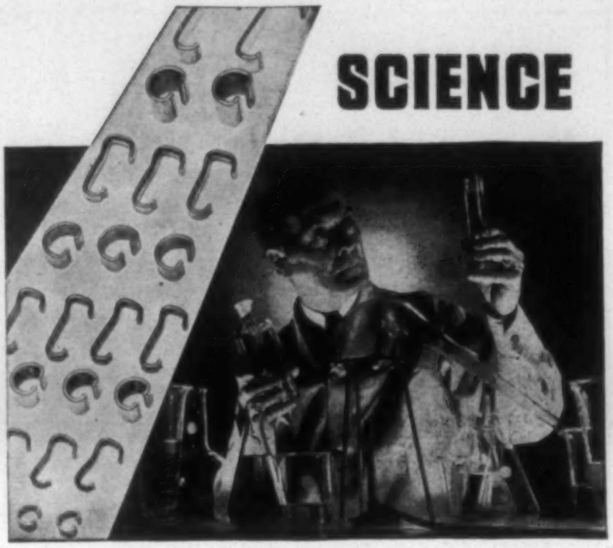
Emphasis to his remarks on labor problems was made by G. Allen Dash, Jr., labor relations authority, who declared, "Some real attempts should be made jointly by employers and labor to keep Northern textile mills competitive." Mr. Fisher further declared that the end of the war has so changed conditions that the need of new price ceilings on cotton textiles is imperative. The competition given cotton fiber by the synthetic variety, including glass fiber, casein and vinyon, will be increasingly evident with the release of restraints on the latter.

Shuttles Catalog Issued By Steel Heddle

A 40-page catalog on shuttles, as manufactured by Southern Shuttles Division of the Steel Heddle Mfg. Co., with plants in Greenville, S. C., and other cities, has been released. The publication, printed in two colors and illustrated, is designed for loom operators or persons interested in the latest equipment for weaving. A copy of the catalog will be sent on request, providing that such request is written on the letterhead of the firm employing the applicant.

Spring Colors To Reflect War's End

Radiant hues called "jubliant colors" are highlighted in the advance rayon collection for spring, 1946, which the Textile Color Card Association has just released. These colors, according to Margaret Hayden Rorke, managing director, "reflect our joy and exultation that the war has ended victoriously and our gallant troops are coming home." Color groups for next spring are identified as romantic pastels, tone-on-tone and neutral, featuring light brown and blond tones.



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Future Army Contracts To Stress Price

Effective immediately greater reliance will be placed upon competitive prices in the awarding of Army contracts, the War Department has announced. This is a departure from the wartime practice of letting contracts on a strictly negotiated basis. The change has been made possible because of the tremendous drop in Army procurement, the relaxation of delivery schedules and the consequent increase in competition for the business.

Where there is competition for War Department procurement, the chief of the technical service involved will advertise and solicit quotations. All requests submitted to contractors will state that while the award of a particular contract will normally be made to the lowest qualified bidder, the War Department reserves the right to award the contract as the result of negotiation and to reject any or all bids.

If the price is fair and reasonable and the bids received indicate the effect of competition, the award will be made to the low bidder and no detailed analysis of estimated cost will be needed. No further negotiation will be necessary under such conditions. However, if no real competition is reflected in the bids, if an insufficient number of contractors submit bids, or if prices bid are excessive as compared with earlier prices, an analysis will be necessary and negotiation will continue. This practice will also be followed if Army procurement requirements absorb a substantial portion of the capacity of an industry or if requirements are placed with a sole source, as in research and development contracts. If bid prices indicate that the contractors are deliberately pricing themselves out of government business in order to handle civilian business, the same procedure will be followed.

The New Silk Industry in Texas

Now that the horny hand of war has almost entirely mangled the silk of Japan and China—so that even the Son of Heaven may not have enough silk yardage for a ceremonial robe or a mandarin enough of the stuff to carry on in ancient style—the Honorable Silkworm chews his mulberry leaves "deep in the heart of Texas."

What with the American-invented automatic unreeling machine, the problem of cheap labor for a tedious job—that of unwinding raw silk from the cocoons—has been circumvented. Touted "the cotton gin of the silk industry," the new labor-saving device was invented by Gustaf Beckman of Providence, R. I. It is capable of unreeling more silk in a week than can be unwound in 100 days by hand.

Thus, sericulture—the art of raising silkworms—is due to join American textile nomenclature. The term embraces the two-month life cycle of the silkworm, or the life and industry of the creature, in which the two are consummated. Beginning as eggs laid by the female silkworm moth, they are incubated at 78° for ten days, when the silkworms are hatched. Placed in flat trays, the worms begin an enormous 25-day repast of tender mulberry leaves. One ounce of eggs—about 30,000—will have consumed 1,500 pounds of mulberry leaves by the time they "become of age." The mature worms, about two to three inches long, launch upon the most significant operation of their career—spinning the cocoon. According to an observer, "Through the mouth, they extrude sticky filaments of a gummy-fibrous substance to wind their bodies in a closely knit shroud, or chrysalis." Upon completion of the cocoons, they are refrigerated to kill the worms inside. After soaking the cocoons in hot water to remove a gummy coating, the fine threads are unwound into skeins by the new automatitc unreeler.

During the long leafing season of mulberry trees—about seven months of the year in Texas—crops of silk are harvested every 45 days. There are 130,000 mulberry trees tended by the Mineral Wells sericulturists, all of whom raised by subscription the money with which they founded their industry.

Harking back to Japan, even if the Japanese can rebuild their war-battered silk industry, most of their U. S. market will be gone, according to Hyram T. Nones, a United States Department of Commerce economist and expert on silk. Although the Japanese may export some highly specialized silk goods, "the bulk of Japan's world market will be gone," he added. An extensive survey of Japan's silk and textiles is now under way to determine which are to be allowed to operate and to what extent. Since the war the mulberry acreage in Japan has decreased appreciably.

As an aside, Rep. W. R. Poage of Texas thinks that the day will come when American women will be able to wear panties made of silk produced in America—not Japan. This won't happen overnight, he said. In fact it may take 20 years. But Congress, he declared, is willing to help speed the day along. Poage has been named chairman of a five-man house agriculture subcommittee which will study the ways and means of developing an American raw silk industry. The committee will look into all phases of the question, he said, and will try to determine if such an industry would be economically feasible.

Chemical Industries Exhibit Scheduled

The 20th Exposition of Chemical Industries, among the first of post-war industrial expositions, will be held Feb. 25 through March 2 in Grand Central Palace, New York City, according to announcement by Charles F. Roth, president of the International Exposition Co., under whose management the show of raw materials, processing equipment and chemical products is being readied. It is anticipated that the exposition will serve as an accelerator to the chemical industries, providing opportunity for personal contact and conferences between principals, technical staffs, manufacturers and professional consultants. Many new war-created products applicable to civilian operations and improvements in process equipment and chemical research will feature the exposition.

Employment Service Established for Chemists

Georgia School of Technology, Atlanta, has opened in conjunction with the American Chemical Society a Southern regional employment clearing office for chemists under the supervision of Dr. W. M. Spicer. Services will be available at no charge to chemists, chemical engineers, employers and educational institutions in Georgia, Florida, Tennessee, the two Carolinas, Mississippi, Alabama and Louisiana.

Restoration of the silk industry to pre-war export levels in Japan will take at least ten years, according to Japanese economists. Since the manufacture of silk practically stopped during the war, major problems in the revival of the silk industry in Japan include restarting silkworm cultivation and reconversion of plants from wartime to peacetime activities.

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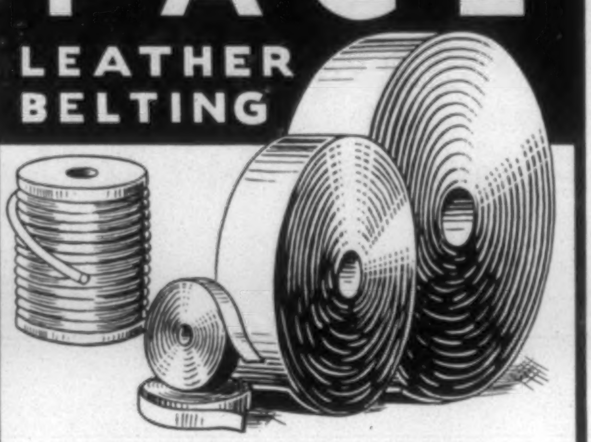

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Soybean Fiber Plant Under Construction

Construction on a new plant for the manufacture of soybean textile fiber is under way at Sharonville, Ohio, according to H. R. Drackett, president of the Drackett Co. of Cincinnati. A plant for the extraction of protein from soybeans is being erected on the same site, and both plants are expected to be completed early next year. The fiber plant is expected to increase the output of soybean textile fiber many times the present production, and the protein extraction plant is designed not only for soybean fiber processing but also to supply protein for such things as sizings and finishes for textiles.

The company has been hiring new employees since V-J Day and is currently in the labor market for men with various special skills and aptitudes. The company's soybean operations, which include the manufacture of soybean fiber, are expected to expand substantially in the post-war period, Mr. Drackett said.

Walke To Establish Charlotte Branch

The Henry Walke Co. of Norfolk, Va., dealer in mill and contractors' supplies, will establish a branch of their business in Charlotte Jan. 1 to better serve its customers in the Carolinas. At its Charlotte distributing center, to be located at 1310 South Tryon Street, a representative stock of machine tools, small power tools, pipe, valves, fittings and a full line of mill supplies, steel and equipment for cotton mills, industrial plants and contractors will be carried. J. E. Fussell will be manager of the Charlotte branch and R. C. Fussell, assistant manager. Both have been associated with the Henry Walke Co. in various capacities for many years.

Hercules Plans Chemicals and Resins Plant

Hercules Powder Co. has announced plans for the construction of a $1,500,000 organic chemicals and resin plant near Burlington, N. J. The new plant will be built on a tract of land just north of the city in Burlington township and fronting along the Delaware River. The tract contains in excess of 100 acres and will provide adequate room for future plant expansion.

From 150 to 200 persons will be employed at the plant when all units are completed and placed in operation. Most of these employees will be drawn from the Burlington area.

Construction work on the Burlington plant is expected to get under way shortly. When completed, the plant will materially increase Hercules production of organic chemicals and resins, which are manufactured from basic materials processed in other company plants. The products to be made at Burlington are used in paint, varnish, lacquer, printing inks, adhesives, rubber compounds, and coated textiles. Included in the schedule for future production are some new products and synthetic resins that never have been produced heretofore.

The plant, which will be the sixth Hercules synthetics department plant to be placed in operation, will be under the direction of R. F. Schlaanstine, director of operations for the department. Other plants are located at Hattiesburg, Miss., Mansfield, Mass., Brunswick, Ga., Hercules, Del., and Parlin, N. J.

The location of the new plant at Burlington, which is adjacent to highway, railway, and steamship facilities, will facilitate deliveries to Hercules customers along the eastern seaboard, and also will be close to the supply of essential raw materials used in the production of organic chemicals and resins.

Research has played and will continue to play an important role in the development of products of the Hercules synthetic department. The proximity of the plant at Burlington to the center of Hercules technical and research staffs at Wilmington will make possible closer co-operation between plant and laboratory with the resultant more rapid development of new resin products. Company engineers have designed the plant. The buildings to be erected on the plant site will house equipment for the manufacture of rosin esters, hydrogen, hydroabietyl alcohol and derivatives, and hydrogenated resins. Office, laboratory, power house and shops will be provided on the site.

Textile Men Urge Lifting All Controls

Permanent establishment of the textile independence of this country and protection of American textile workers against the low wages paid by the Japanese are being sought by a special committee authorized by the board of government of the American Cotton Manufacturers Association. The 24-man board, representing cotton manufacturers in Virginia, North Carolina, South Carolina, Georgia and Alabama, will present the resolution to other cotton industry organizations, members of Congress and government officials. The committee will be appointed by Charles A. Cannon of Kannapolis, N. C., chairman of the association's board.

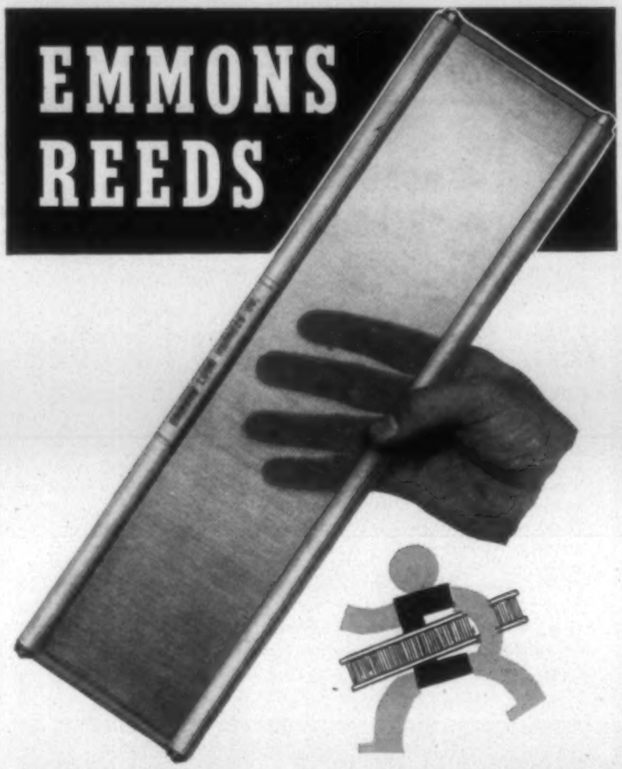
Dr. W. P. Jacobs of Charlotte, president of the association, in announcing the resolution said that "The American Cotton Manufacturers Association seriously fears that the announced plan of the present administration to reduce tariffs still further may result in stimulating imports in textiles from foreign countries to the extent that, after the post-war rehabilitation work is completed, the American industry may be seriously jeopardized." The resolution said, in part:

"Continuation of wartime bureaucratic controls after the emergency has passed can only discourage production, create uncertainty, decrease employment and encourage the entrenchment of bureaucracy. It engenders fear and creates a situation of scarcity which are the breeding ground for inflation and panic.

"Price ceiling controls, to accomplish their intended purpose, reflect rising costs too slowly and then, if unsuccessful, will automatically discourage and retard production."

It said that the bureau of census "shows a decrease in cotton spindle activity from more than 11,000,000,000 spindle hours monthly to less than 8,000,000,000 during the period of price control, 1942 to date: a serious decrease in employment and in available textiles."

The Story of Linen by William F. Leggett, an authentic and concise history of linen, is announced by Chemical Publishing Co., Inc., 26 Court Street, Dept. MJ, Brooklyn 2, N. Y. The author, associate technical editor of *Rayon Textile Monthly*, herein treats of linen in ancient spinning and weaving and the importance placed upon the fabric in countries of Europe and the Near East from early times to the present.



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You can be sure of a soft, alluring finish when you use Laurel Hosiery Finishes. Their basic lubricating characteristic smooths and protects the fibers—cotton, rayon or combinations—seamless or full-fashioned,—increases their elasticity and life, prevents snags, and helps eliminate wrinkles.

Developed by Laurel Technicians to meet exacting specifications, Laurel Hosiery Finishes have pleased leading mills for over thirty-six years. Laurel Technicians will gladly recommend a Hosiery Finish to fit your job . . . one that will simplify your processing and speed up production. Send for trial order and formula today . . . available for immediate delivery.

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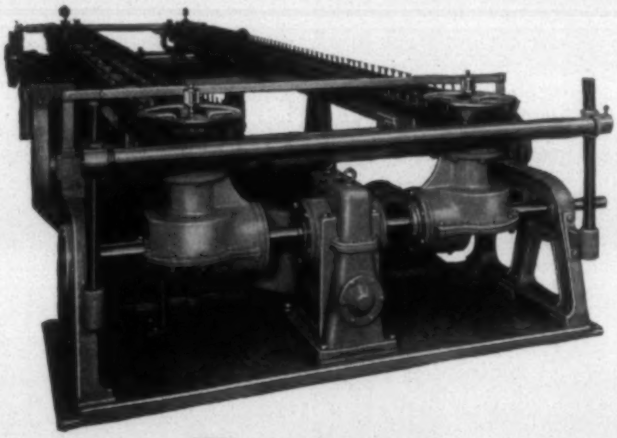

Tenters

Butterworth Tenters—Straight Automatic, Vibratory, Mercerizing, Return. All new high-speed types. Straight Automatic Tenter is designed for speeds up to 200 yards per minute. All lengths and widths in all types of Tenters.

H. W. BUTTERWORTH & SONS CO.,
Serving the Textile Industry since 1820.
Main Office and Works, Philadelphia 25, Penna.

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Textile Research Institute Meets Nov. 9

The 16th annual meeting of the Textile Research Institute will be held Friday, Nov. 9, in New York City at the Waldorf-Astoria Hotel commencing with a business meeting for institute members at 9 a. m. The morning technical session from 10:30 to 12:30 will be devoted to the fundamental research work of the Textile Foundation at Princeton, N. J., in which five T. R. I. graduate fellows are participating. Reports will be given of research concerned with the mechanical properties of textiles and also on the oxydative degradation of cellulose. In connection with the latter subject some important conclusions have been reached with respect to the action of soaps and other detergents on oxydized cellulose.

Luncheon will be served at 12:45 and will be followed by and address by Prof. H. D. Smyth, chairman of the department of physics, Princeton University, who is author of the official report on the development of the atomic bomb, and whose subject will be "Atomic Energy."

The afternoon session, commencing at 2:30, will be devoted to a technical program conducted by the research staff of the institute. The papers will include the following subjects: "A Method of Correlation of Equilibrium Moisture Regain in Textile Fibers: Theoretical and Industrial Implications" and "Progress Report on Radiation Drying of Textiles."

Non-members of the institute are welcome and are invited to attend the technical sessions and luncheon. Those who are interested may obtain information by writing Textile Research Institute, Inc., 10 E. 40th St., New York 16, N. Y. Luncheon tickets will be $5.00 and should be obtained in advance.

Beaunit Controller of Skenandoa Rayon

Beaunit Mills, Inc., New York City, with Southern units located at Rockingham and Lowell, N. C., has purchased the entire common stock holdings of St. Regis Paper Co., New York City, in Skenandoa Rayon Corp., Utica, N. Y., involving a capital gain of approximately $2,000,000. I. Rogosin, president of Beaunit Mills, Inc., and new president of Skenandoa Rayon Corp., has indicated his intention to use the entire output of rayon yarn produced by Skenandoa in the knitting mills of Beaunit. The present production of Skenandoa, including machinery now in process of installation, will approximate 10,000,000 pounds annually. Beaunit Mills and subsidiaries own and operate nine weaving and knitting mills in New York, New Jersey, Indiana and North Carolina. The company engages in the knitting and weaving of rayon, cotton and wool fabrics.

Reorganization of the Surplus Property Administration to speed the disposal of billions of dollars of surplus property was announced Oct. 1 by W. Stuart Symington, newly-appointed surplus property administrator, at the conclusion of the ceremony of taking the oath of office. Under the reorganization, the Surplus Property Administration, which Congress established to take over the functions of the old Surplus Property Board, will be decentralized among five assistant administrators to speed up the solution of pressing problems of surplus disposal. The Surplus Property Administration has the function of supervising and regulating the disposal of governmental war assets under the Surplus Property Act of 1944.

Jacobs Reopens Danielson, Conn., Plant

The E. H. Jacobs Mfg. Co., with plants in Danielson, Conn., Montreal, Canada, and Charlotte, reopened its rubber plant in Danielson Oct. 8, with its former manager, J. E. Moe, in charge. The Danielson plant was equipped with complete modern machinery in 1940 and operated until shortly after Pearl Harbor, when the company contributed its entire stock of crude rubber, amounting to over 100,000 pounds, to the government. Additional new equipment has been ordered to fabricate crude and synthetic rubber and Army duck for all types of loom pickers, lug straps, bunters, spinning cots, and more than 50 other products for the textile industry.

Calco Announces New Vat Dye

Calcosol Gray 2G Double Paste, a new anthraquinone vat dye for which patents have been requested, has been announced by the Calco Chemical Division of American Cyanamid Co. of Bound Brook, N. J. This dyestuff reportedly has demonstrated exceptional fastness to light, chlorine and water spotting and outstanding level dyeing properties. The new paste also possesses a high degree of dispersion, making it of special interest for application by the pigment method of package dyeing and by the pad-jig method on cotton, viscose-rayon and linen piece goods. It is being recommended for all types of cotton and viscose-rayon materials.

Staley Reproduces Textile Paintings

Recognition of the textile industry's developments in weaving is accorded in a series of four-color paintings reproduced in advertisements of A. E. Staley Mfg. Co., manufacturer of textile starches. The artist, J. R. Bennett of Chicago, executed the original water-colors after extensive research had been pursued as to authenticity of looms, costumes and other details. The art of weaving in India, Egypt and other countries provide subjects for the paintings. A short text accompanies them.

Displayed above are four of the paintings used in the history of weaving advertising series currently being sponsored by A. E. Staley Mfg. Co.

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A low cost synthetic organic compound of exceptionally high detergent value. Effective in hard water, acid, or alkaline baths.

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German Textile Developments

(Continued from Page 33) that we have seen anywhere in that it makes on overlay or shingle effect of the cut staple so that if the machine is cutting four-inch staple, which it does cut uniformly and continuously, each four-inch segment overlays three inches of the previous cut. This stock is dropped on an apron and moved to a new type intersecting gill box and from the gill box into a coiler head and a can. The people at Denkendorf felt that this machine development had gone about as far as they could carry it and they were ready to turn it over to some machinery manufacturer.

The type of roll covering used at Denkendorf was of interest to us, and we were advised that it was "Mipolam," a synthetic vinyl chloride or polyvinyl chloride made by I. G. Farben at Troisdorf near Cologne. This roll covering comes in hollow tubes and in any required diameter and various densities. It is slightly plastic, and the hardest density was used on drawing, the medium density on roving, and the softest covering on spinning. Usually the first roll on drawing and spinning is covered with leather over the Mipolam to reduce static. We went out to a roll covering plant in the vicinity to see some rolls covered because of the high praise these people had for this particular type of material. The tubes of Mipolam are put in tanks of warm water and softened, and the iron roll shells are put on an arbor with one end held in a vise. A piece of the Mipolam tubing is connected to an air hose and a compressor and inflated. The inflated tube is then slipped on the shells and the arbor is removed from the vise to a smooth band saw and the shells cut off according to length. Each shell is then put in a lathe with two grinding tools, and one cut is taken to cut the roll covering flush with the edge of the shell. The shell is next put in a precision grinding machine and one cut is ~~taken~~ to give a true diameter on the roll. The roll itself turns very slowly and the grinding wheel at high speed in order that the synthetic covering will not heat up and plasticize. These rolls are finished to 0.01 to 0.03 mm. true diameter. We were advised that this roll covering costs about 50 per cent more than leather but lasts ten times as long. One roll covering would last about four years or 16,000 operating hours. It can be buffed down to about three mm. thickness. We also observed belts on the roving frames made of polyvinyl alcohol. These belts are spliced by warming the ends of the belt in hot water and then putting them under a clamp and leaving for two or three hours. We were told that these belts had much better gripping power than leather and that they had never had any trouble with them.

We saw no overhead cleaning either in this plant or any other mills that we visited in Germany.

The German textile industry uses nothing but filling wind on spinning frames and the majority have an automatic variable-speed motor. The plant at Denkendorf had water-cooled spinning frame motors with the circulating water going through a cooling tank in the yard.

The testing laboratory was of interest to the writer, and I will try and describe it to you. Germany uses nothing but single fiber tests, as far as we could tell, against our fiber bundle testing. The first system, adopted in January, 1937, and called System DIN (Deutsch Industrie Norm), called for five meters of fiber to be tested in three groups and each group cut to 25 mm. lengths. For cotton they used ten meters of fiber and three groups. For filament rayon, five meters and three groups, and for bast fiber, ten meters and three groups. The Lehr Spinneri uses the above method but uses two operators and therefore has six groups. This gives better control. In October, 1940, a slightly modified method was recommended by Fa-Chem-Fa, which is the technical group for the manufacturers of chemical fibers. This method called for ten groups of 50 fibers each and was the one largely used by industry. In all testing, both wet and dry tests are made on yarn, fiber and fabric. By dry tests we mean a conditioned test. On fibers the final results of the break in grams is multiplied by the number metric of the fiber and the Reisskilometer is obtained. The same thing is done when testing yarns, and the break times the number metric gives the Reisskilometer so that a percentage yield of strength in the yarn in the fiber can be calculated. We were advised that 55 per cent was a good average strength yield on their rayon yarns. No skein tests were used on yarns in Germany as far as we could tell. Card sliver was broken on a single strand machine with special bakelite jaws to determine the adhesion qualities of the finish on the fiber. This plant worked very closely with the rayon manufacturers to get the best possible finish on all staple fiber. They also had a single fiber abrasion machine, which was developed by Von Ostermann at Salach.

Another interesting machine was the Frenzyl Hahn machine for testing the number of breaks at a specific elongation. This machine had a variable speed ranging from five to 40 meters per minute and a variation in elongation from 0 to 40 per cent. For example, if a single yarn broke at 200 grams and 12 per cent elongation, you could take a bobbin of the yarn to the Frenzyl Hahn machine and run it at two per cent elongation, four, six, eight, ten per cent, etc., and record automatically the number of breaks at each elongation. All testing machines had a variable speed control, and after a few preliminary breaks the speed control was adjusted in order to obtain a break in approximately 20 seconds. If my memory serves me right, I think we obtained 92 photomicrographs, both cross section and longitudinal views together with complete tests on these fibers.

Sufficient tests were run on each fiber in this instructional spinning plant and norms for standards were established for the German textile industry. With accurate information on fiber strength, good processing, and careful control, they knew what strength yield should be reasonably expected from any type fiber and also how many minutes would be required in the mill to produce a kilogram of any given size yarn. If the mills did not come up to a reasonable standard as set by this organization, they were instructed how to make the corrections and if results were not forthcoming, the supply of staple fiber to the mill was stopped.

We feel that a plant so beautifully designed, so well equipped, and so well staffed should be utilized for the good of our textile industry, and as soon as the translated reports of this institution are ready, we hope and believe that you will agree with us.

Lombard Machine Works, Inc., textile machinery producers, has taken 20,000 square feet of space in the old Textile Finishing Machinery Co. group of buildings in Providence, R. I., where it will move its manufacturing operations from Worcester, Mass.

John P. Maguire
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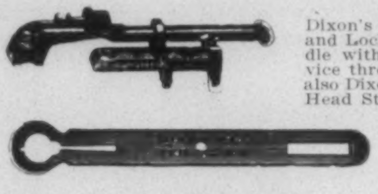

Dixon's Patent Reversible and Locking in Back Saddle with New Oiling Device three Saddles in one, also Dixon's Patent Round Head Stirrup.

Send for samples

Dixon Lubricating Saddle Co., Bristol, R. I.

Cotton Goods Market

Cotton textile manufacturers have been authorized by the War Production Board to return to the weaving of standard constructions in a wide range of broad woven fabrics. Through amendment of Order L-99, which controls cotton textile production, WPB has discontinued the specifications for many materials that formerly had to be made on a reduced thread count basis in the interest of greater yardage production.

Thread count specifications formerly applicable to Class C sheetings, drills, twills, jeans, sateens and gabardines have been removed and manufacturers may now resume standard type constructions for these materials. Construction limitations have also been withdrawn from window shade cloths, pajama checks and tobacco and cheesecloths. Restrictions on the construction of poplins have been changed from specific thread counts to a range.

In announcing the elimination of many of the construction specifications, WPB explained that not all of the sub-count fabrics, which had been required as a wartime conservation measure, had proved as satisfactory as the standard constructions from the standpoint of serviceability and durability. Due to the relatively short supply of osnaburgs and Class A and Class B sheetings, the current sub-count requirements for these materials, which are widely used for bagging purposes, are being retained for the present. Sub-count constructions for these particular fabrics have been reasonably satisfactory for all their major uses, WPB said.

In addition to revising construction requirements and regrouping certain of the fabrics under production as a means of allowing mills greater flexibility, the new amendment of L-99 removes all restrictions on the operation of new looms. Such looms may now be utilized in any manner desired by the industry. Previously, new looms could be operated only as authorized by WPB. Another important aspect of the amendment is that it will permit increased production of bed ticking. Although many looms in bed ticking plants were released from tent twill work Aug. 18, 1945, when Direction 2 and Schedule B to L-99 were revoked, those looms that had been producing tent twill on July 22, 1944, the "loom freeze date," could not revert to bed ticking production in spite of the revocation of Direction 2 and Schedule B. Looms thus affected are now free to produce bed ticking.

WPB officials stated that, even though the present revision of L-99 allows producers considerably more latitude, preference ratings are still applicable to cotton fabrics under continuing WPB orders.

J. P. STEVENS & CO., Inc.
fabrics for diversified uses
1410 BROADWAY 44 LEONARD STREET
EMPIRE STATE BUILDING
NEW YORK

Cotton Yarns Market

Practically all combed yarn counts are reported sold up through the end of the fourth quarter, but yarn sources say they see a faint glimmer that the government may relax its freeze on many counts during the next six or eight weeks. Carded counts are reported not quite as tight as formerly, but production in Southern mills is said to be down approximately 50 per cent compared with the war production output.

In the belief of sale cotton yarn distributors in Philadelphia, complaints of present scarcity of yarn have, in many instances gone substantially beyond statistical proof of such a condition. As to carded counts, it is claimed by distributors that the available supply of ordinary quality yarn in the counts usually wanted undoubtedly has enlarged to such a degree that veteran suppliers look for a changeover to a buyers' market, probably early in 1946.

Most of the complaint of insufficient supply has had to do with combed yarn. A number of important civilian lines are involved. In some of these, spun rayon is used along with cotton. Spun rayon also is in short supply. This leads to efforts to offset spun rayon shortage by getting more combed cotton yarn. In other civilian lines, consumers never used anything but combed yarn and they report insufficient supply.

Yarn distributors are trying to handle all these complaints as best they can, it is claimed. The point is made, however, that very few cases have come to arbitration, and in the long run, customers take in the yarn and pay for it regularly.

There is a current widespread observation that the production of cotton yarn is from half to two-thirds of what had been normal output.

Cotton spindles active during September numbered 21,911,746 compared with 22,170,180 during August this year, and 22,279,910 during September of 1944. According to Census Bureau reports, active cotton spindles last month included: in cotton-growing states, 17,112,820 compared with 17,365,962 for August this year, and 17,373,280 for September last year; and in the New England states, 4,285,862 compared with 4,282,094 and 4,363,206.

Cotton consumption during September included 701,000 bales of lint, compared with 739,811 during August of this year and 789,623 during September of 1944.

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GASTONIA, N. C.

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Universal Standard Ring Travelers cost you less because they give you better service. They're durable, uniform, precision made, with Bowen patented Bevel Edge to insure smooth even yarn. They reach you in perfect condition with full count assured because they come to you in sealed metal containers. Samples on request—write direct or to your nearest representative.

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Sealed metal containers guarantee that your U. S. Travelers will be full-count, factory-perfect.

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Drax treated fabrics are water repellent. They also resist spotting, staining and perspiration. The Drax process does not affect the appearance, texture or porosity of the fabric. Drax is a one bath water repellent and is applied on the quetch, padder, jig or beck. Efficient -- Economical -- Durable.

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Please send sample ☐ and Drax booklet ☐
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Company
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Spun Rayon Dyeing and Tub-Fast Blends

(Continued from Page 34) according to recommendations of the enzyme makers. (See Traymer's notes on desizing enzymes for use on spun rayon and blended goods in TEXTILE BULLETIN for July 15, 1944, and Aug. 1, 1944). For a 150-gallon mix use ten to 60 pounds of enzyme (amount used according to strength of enzyme) and six pounds of wetting agent (non-toxic to enzyme). The goods are padded at 120 to 145° F., batched one to two hours and then are ready for feeding onto continuous open width boil-off unit or boiled off on the jig. The open width boil-off processing will be discussed in this article. The older types of continuous open width boil-off units are usually composed of two to four boxes holding from 2,000 to 6,000 gallons in first box to lesser amounts in the second and succeeding washing and cooling-off boxes with the usual J-boxes or bins for goods.

In recent years there has been considerable development on open width continous boil-off units that have proven quite successful in preparing spun rayon for vat dyeing. Dyeing plants are now able to secure a new open width boil-off unit that is very flexible and useful for preparing spun rayons and blends either for vat dyeing or other difficult processing goods requiring well prepared goods free of wrinkles, chafe and break marks as well as excessive stretching that occurs on the older type of open width continuous boil-off units.

For a 3,000-gallon boil-off bath used for the first charge prepare ten pounds of low titer soap, ten pounds of Nacconal, two pounds of meta hexa phosphate and five pounds of tetra sodium pyrophosphate. Feeding on liquor, use this charge dissolved in 200 gallons. It is fed on according to the type of goods being boiled off.

The goods impregnated with desizing enzyme enter the first boil-off at a temperature of 190 to 210° F., moving in open width at a speed of 25 to 50 yards per minute. As the goods leave the first box it passes through J-boxes for cooling off before entering into succeeding machines for hot washing and gradual cooling. The thoroughly rinsed and cooled goods are fed over a reel into open boxes from which it is fed into a loop dryer and then framed, ready for dyeing on the continuous machine.

Now, a word about dyeing on continuous vat dyeing range. A vat blue (heavy copen shade) was run on basket weave spun rayon goods. The vat blue feed liquor was prepared and reduced at 130° F. in the feed tank. Ingredients consisted of Ponsol Blue BFS Paste, at seven ounces per gallon; liquid caustic soda, at 2.5 ounces per gallon; hydrosulfite powder, at 1.15 ounces per gallon; penetrant (resistant to alkaline hydro bath), at 0.35 ounces per gallon; and vegetable gum, at 0.05 ounce per gallon.

The continuous range consisted of main pad box with 20-gallon capacity, which was charged with eight gallons of "spring liquor" and the same caustic hydrosulfite and wetting agent content as used on the reduction vat tank. A second small pad box held eight gallons, which included 1.6 ounces soda ash solution per gallon at 110° F. The booster box capacity was 175 gallons and was kept at 140° F., this bath containing 1.4 ounces of soda ash per gallon and 0.35 ounces hydrosulfite per gallon. The feed liquor for the booster box was double the concentrations of the booster box solution. The remaining units of range consisted of nine washings (oxidizing), soaping-off and hot washing-off boxes.

The prepared spun rayon goods, running at 80 yards per minute, were fed under immersion roll through padder at 120° F., using 5,000 pound pressure, run over top roll and then into a second pad box (charged with one gallon of reduced pad liquor at start) at 140° F. On leaving the booster box the goods entered two cold water boxes for rinsing, then into the third box at 120° F., containing 0.2 ounce sodium perborate per gallon, to hasten full oxidation before entering three boiling soaping-off boxes prepared with 0.25 ounce Igepon T Gel per gallon, 0.05 ounce tetra sodium pyrophosphate per gallon, and 0.05 ounce meta hexa phosphate per gallon.

These soaping-off baths were fed with liquor made up five times the concentration of the charge on boxes. After passing through the boiling soaping-off boxes the goods were given a hot washing at 180, 160 and 140° F. on three boxes and then run through a final box under cold spray before being dried on the cans, the first eight of which were wrapped to permit evener and more uniform drying throughout the fabric.

OBITUARY

George Z. Griffin, 56, foreman of No. 7 spinning room in Cannon Mills Plant No. 1, Kannapolis, N. C., died this month. For 25 years an employee of Cannon Mills Co., Mr. Griffin is survived by his wife; two daughters and one son.

Theodore Wenzel, president of Southern Resin & Chemical Co., Glen St. Mary, Fla., and executive of Rohm & Haas of Philadelphia, Pa., died recently at Jacksonville, Fla. He is survived by his wife, and a son.

Alfred J. de Greck, 62, secretary of Galey & Lord, Inc., New York City, died recently at Fort Ticonderoga, N. Y. He is survived by his wife and a son. Mr. de Greck was widely known in the textile industry.

Raymond C. R. Noren, 46, one of the partners in the Horton-Noyes Co., advertising agency of Boston, Mass., died recently. He is survived by his mother, his wife and a daughter.

M/Sgt. Walter W. Lane, 28, of the Second Armored Division, United States Army, died Sept. 24 at Walter Reed Hospital, Washington, D. C., after a long illness contracted while serving in Europe. Before he entered the service Sergeant Lane was in charge of the Philadelphia office of Warwick Chemical Co. He is survived by his wife.

John Adrian, 51, special representative of Sylvania Industrial Corp., died Oct. 8 in Stamford, Conn. During the war he served for two years with the chemicals bureau of the War Production Board in Washington. He is survived by his wife; two sons and a daughter.

Taking the brakes off PRODUCTION

Worn rings are literally a drag on your spinning and twisting machinery. End this slow-down with new DIAMOND FINISH rings, and watch the tangible gain in pounds per shift. Our superbly polished DIAMOND FINISH assures smooth starting, long life.

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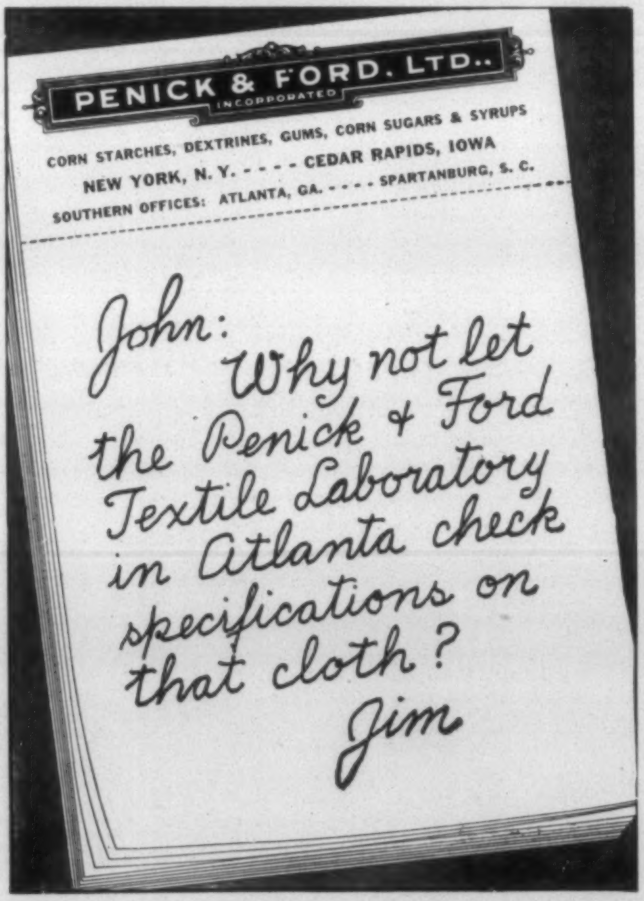
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John:
Why not let the Penick & Ford Textile Laboratory in Atlanta check specifications on that cloth?
Jim

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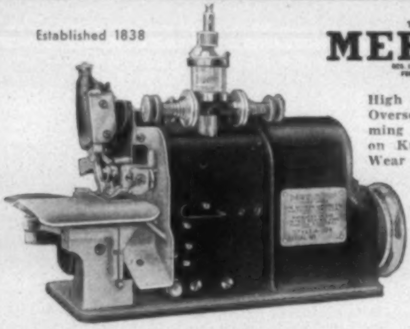

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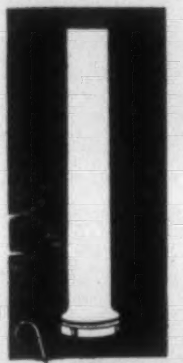

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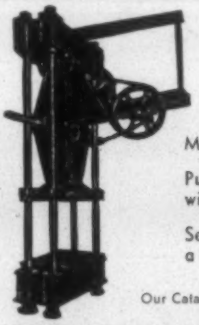

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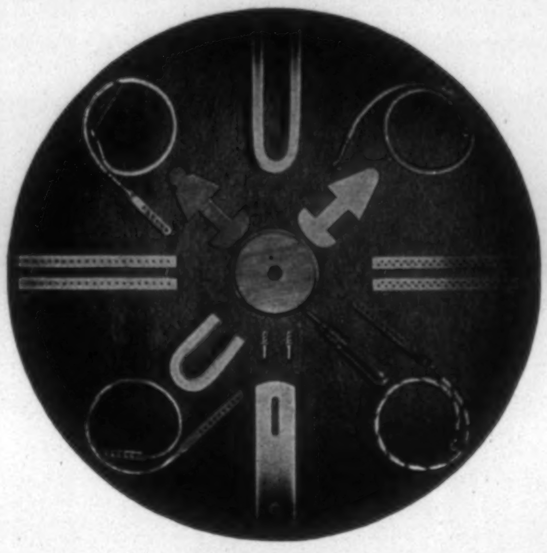

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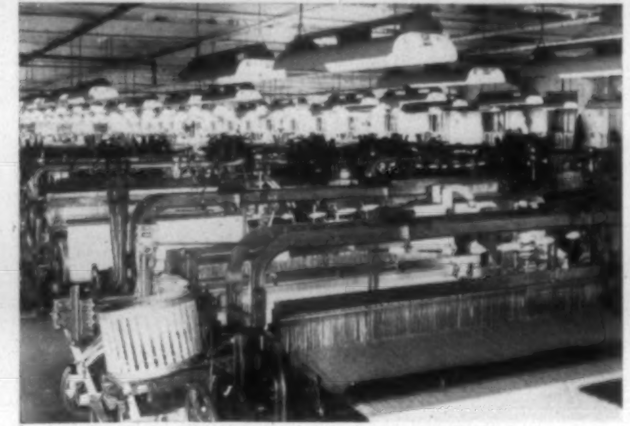

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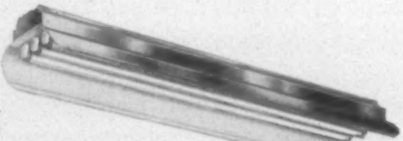

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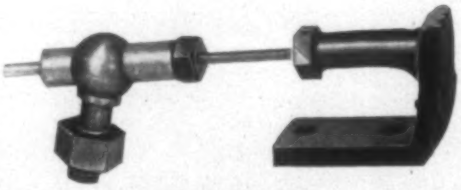

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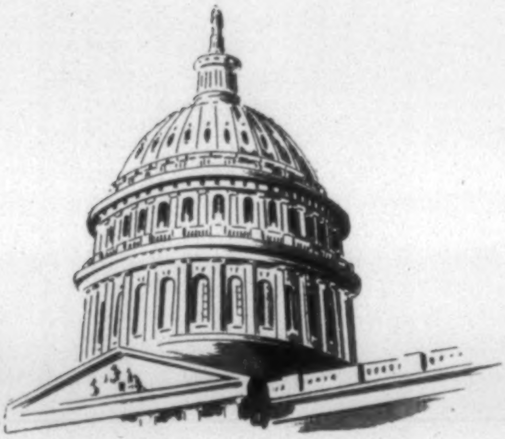


[Exclusive and Timely News from the Nation's Capital]

LABOR STRIKES AND TAX REVISION pose the fundamental, basic problems gripping the Administration and Congress, one threatening the reconversion program and posing the weightiest domestic problem since the war's end that has faced Mr. Truman, the other deemed essential to reconversion success. The Administration is wrestling with rebellious, recalcitrant unions, determined not to take cuts in take-home wages due to shortened work-weeks, and just about ready to throw up its hands and ask Congress to enact strong or "drastic" legislation that will nail down union contractural and financial responsibility, establish the sanctity of a wage contract, and put a check on hot-headed "outlaw" action of local unions in tieing up industries.

The patience of Congress is running out; protesting letters are piling high on Congressional desks. Congress is determined there shall be a tax cut, approximating from $5.5 to $6.5 billion in the prospective 1946 tax intake. The House would relieve about 12,000,000 persons from all income taxes; the Senate seems determined on a minimum income tax payment for everybody--called an annual tax. Treasury proposals for reduction are being rolled in the dust.

The net outcome will probably be this: Financial responsibility for the unions will probably be established through (a) legislation that requires annual financial accountings and makes them subject to Federal corporate income taxes, and (b) enactment of an industrial relations statute, upon which committee hearings are scheduled for early November, closely akin to the pending Ball-Burton-Hatch bill.

Individual income levies will be reduced from four to five percentage points, or from 12 to 18 per cent, but with the normal tax retained at one, two or three per cent; corporate excess profits taxes will probably be reduced to 50 per cent this year, and eliminated next year.

A genuine scare has been thrown into the Administration by mounting labor disorders and its failure to deal with a strong hand with outbreaks and disorders has brought a severe blow to Mr. Truman's prestige. Four weeks ago he was riding a high tide of popularity, with most cordial relations with Congress. Today, caustic criticism is heard, his influence and prestige with Congress is falling, and rasping criticism is coming from the general public.

Strikes and threats of strikes are too menacing, Cabinet members have become convinced, to wait until the National Labor-Management Conference, three weeks away, for a solution. The turbulent industrial scene convinces them that either drastic, affirmative action must be taken without delay, or the whole reconversion program is going to be thrown into a tail spin.

(Over)

Repeal of the Smith-Connally Act will probably come before the House within ten days as a drastic move aimed at halting the epidemic of strikes sweeping through the highly unionized industrial East and Mid-West. Prompt action for repeal has been asked by NLRB, wrestling under the impact of 600 petitions for strike votes.

CIO's Political Action Committee, which is busy decorating the stage for the 1946 and 1948 elections, has contributed its bit to the pressure campaign for passage of the Pepper 65-cent minimum wage bill, declaring that although the proposed statutory floor is "insufficient," it represents a good beginning, which will prove a boon to all elements of the economy, "even bankers."

Sweeping opposition to the minimum wage bill, amending the Fair Labor Standards Act, is coming from industry, with strongest attacks against the unduly high "floor" and the job classification provision, which would put the government in the business of fixing all wages. Textile industry spokesmen have assailed every feature of the bill, with big employer associations joining them.

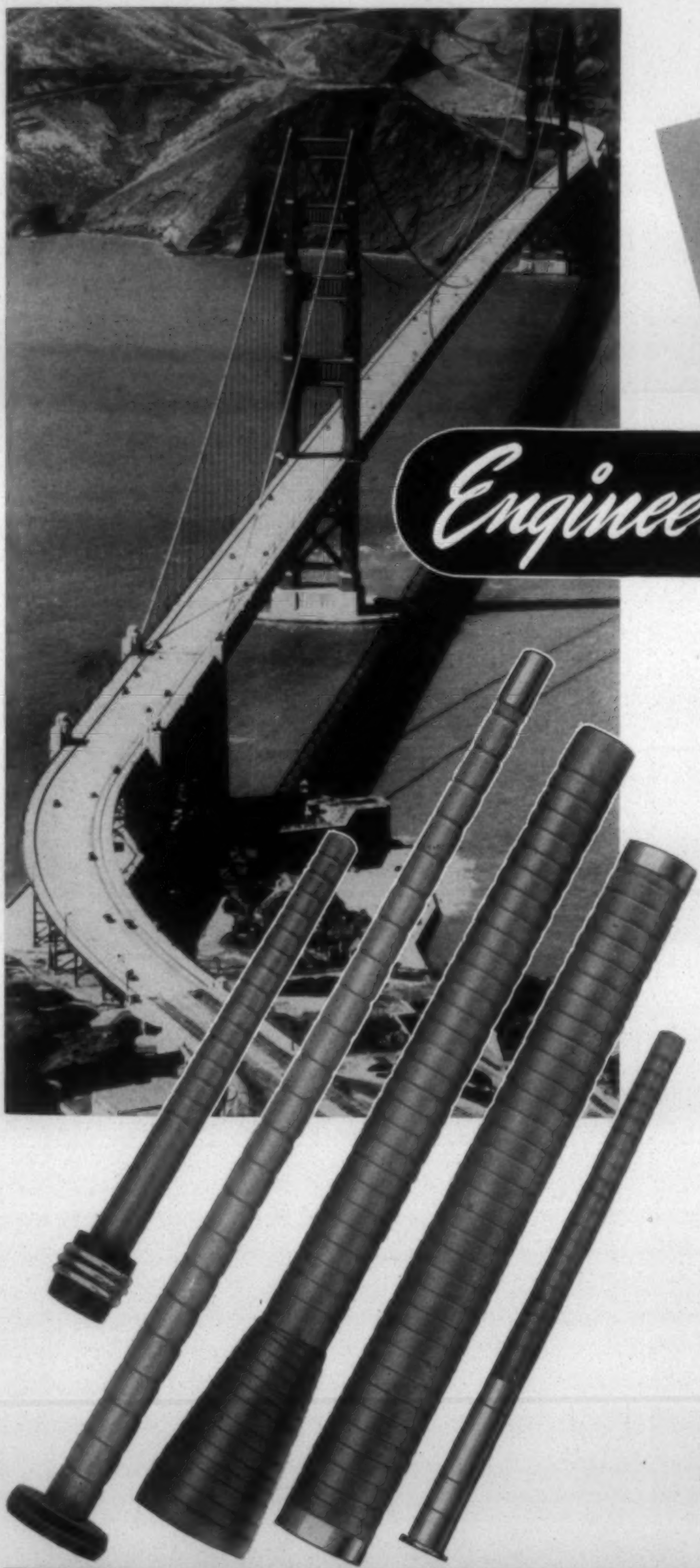
Primary advice to business-industrial management, handed out through American Management Association, is to recognize key ideas in public thinking, and join in clarifying them. Ideas include such issues as social security enlargement and guaranteed annual wage, both of which stand in the public mind as desirable social ends, and both of them principal vehicles of union educational effort. The advice strikes a responsive chord in Congress, where the feeling exists that private business-industry is too much on the defensive in expressing its views, and lacking in an affirmative, aggressive point of view. Congress feels, too, that too many attacks on the free enterprise system are going unchallenged, and that arguments of the unions and their allies tending to influence public opinion away from private enterprise, toward Utopian collectivist or authoritarian regimes, is having too much effect. Congress wants more affirmative attitude on regularized employment, placing veterans in jobs, safeguarding lowly workers in indiscriminate lay-offs, "selling" better labor relations and emphasizing management viewpoint.

Export demand for American cotton may top the pre-war level of six million bales for the 1945-46 season. Export trade is increasing rapidly, with over two million bales exported in 1944-45 season, compared with one to 1.5 million bales in war years. International loans now in process of negotiation in this country are expected to react immediately on American cotton in the world market, which has remained unchanged under recent price increases. Both France and Russia are planning a production program around raw materials, with cotton in first place.

The turning point has been reached in reconversion unemployment, says the Bureau of Labor Statistics, and all things even, there should be more people at work from now on. The trend is toward stability, with an upward movement in employment in textiles, metals, chemicals and rubber.

Employment Services will be returned to State control if Congress has its way, which seems most likely. Recent "rider" for return, attached by the Senate in passing the Unemployment Compensation bill, is stymied in a Ways and Means committee pigeonhole, and attempts to have it reported, with or without the $25-a-week-for-26-weeks provision, are being abandoned.

A big boost for retention of price controls, ardently desired by OPA until inflationary and wage increase pressures cool off, is found in the poll of 7,300 industry-business executives, a great majority favoring retention. Only six per cent want controls ended at once; 29 per cent set January as desirable termination date, and 39 per cent want longer periods.



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